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Training School
...of...
Colorado State
Normal School





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P 13347

FACULTY OF TRAINING SCHOOL.

Z. X. SNYDER, Ph. D., President.

COLIN A. SCOTT, Ph. D., Superintendent of Training School.

ROYAL W. BULLOCK, Principal of High School.

ELIZA GEORGE KLEINSORGE, Supervisor Grammar Grade.

ELIZABETH H. KENDAL, Pd. M., Supervisor Grammar Grade.

ELEANOR M. PHILLIPS, Pd. M., Supervisor Primary Grade.

BELLA B. SIBLEY, Pd. B., Supervisor Primary Grade.

BERTHA M. ANDREWS, Supervisor Kindergarten.

ASSOCIATE SUPERVISORS.

JAMES H. HAYS, M. A., Latin and History.

LOUISE HANNUM, Ph. D., Literature and English.

ARTHUR E. BEARDSLEY, M. S., Biology and Nature Study.

DOUGLAS D. HUGH, A. M., Physiology.

ANNA M. HEILEMAN, Reading and Physical Culture.

HARRIET DAY, Art.

KATHERINE CLUTE, Domestic Science.

SAMUEL M. HADDEN, Pd. B., Manual Work, Sloyd.

FRANK L. ABBOTT, B. S., Physical Science.

GRACE H. SPROULL, Ph. B., History, Literature.

JOHN T. LISTER, A. B., Modern Languages.

DAVID L. ARNOLD, A. M., Mathematics.

W. E. STIFFEY, Music.

INTRODUCTION.

BY COLIN A. SCOTT, SUPERINTENDENT OF TRAINING SCHOOL.

"Freedom Consists in Binding Oneself."

IN the present bulletin the attempt has been made to offer to its readers, as briefly as possible, not merely a working outline, but a glimpse of the inner life and spirit of the Training School. As President Snyder has already well held (in his paper to the N. E. A.), "The Training School is the center of life and interest in a Modern Normal School." As the teacher exists for the child so do the departments of the Normal School primarily exist for the sake of the independent culture of the teacher in training, however desirable that may be, but to equip her to play her part to the best advantage in the Training School.

Like all altruistic positions this means a widening, rather than a narrowing of the teacher's possibilities. Her aim becomes not merely to develop the human in her own breast, but to develop the large and universal humanity as she finds it in the hearts of many. The reflex effects of this objective attitude on her own character is, perhaps, more powerful than are the results of any mere subjective aspiration.

The keynote of such a school is thus one of co-operation among both teachers and pupils. A mutual aim is set

up and a combined production results, in which each contributes to the extent of his ability. Not the equality of assigned tasks, but a construction, whether mental, social, or material, which calls for differences of effort, and natural degrees of appreciation. The increasing socialization of the school does not tend to any leveling up or leveling down. The rule is rather—whosoever is strong among us, let him help the others.

The various ways in which this is carried out are indicated in the different signed articles by members of the Training School staff. Owing to unavoidable limits of space, emphasis is laid on certain features, which, not always because they are better, but rather because they are not so familiar, have seemed to require greater elaboration. In order to make up for this to some degree, there have been appended brief outlines in the form of courses of study. As, however, will be readily gathered, the school does not proceed from the standpoint of a course of study to which the children and teachers constantly subject themselves, but rather from the standpoint of the persons composing the school, by whom the course of study is being constantly formed and reconstructed, as blood is constantly being changed within the tissues of a living animal. It is only in the case of children without initiative, and in the case of teachers without initiative or constructive capacity, that the course of study is injected in a less plastic form. A course of study is a plan of life, and those who are to live the life should at least share in the making of the plan.

While the first function of the Training School is to enable the teacher in training to work out successful results in the actual present conditions of the school, and not to imagine that she is in some other school whether better or worse, the next most important function is to enable her to see the problems which lie before her when she leaves her present environment and gets, as the phrase goes, "a school of her own." The conditions she will there meet are necessarily different from those she finds in the Training School, conditions too which it would be idle to attempt to imitate. What remains the same is always the spirit, which if she has divined it under the more transparent letters of the present aided and protected life, she will be strong to apply in whatever future she may be placed.

At the same time efforts are not spared in the seminars and in private conferences to present in a comparative manner the conditions the teacher will need to meet, and to advise her as to hopeful methods of procedure. Once a week, too, there are invited to the school successful educators, school superintendents, High School principals, in whose addresses the students are able to see reflected the educational ideas and conditions to be found in every region of the State. Such efforts are, however, subordinate to the main notion, which never regards the teacher as a cog in a wheel, unfitted for any machine for which she may have one cog too many or too few, but which conceives her rather as a self-active, fraternal personality, organic, vital, capable of self-adjustment, but still more capable of progress and of growth.

THE TEACHER IN TRAINING.

BY COLIN A. SCOTT.

FROM one point of view the Normal School exists for the sake of the teacher in training. Her needs as a teacher are, however, not opposite, but simply the complement of the needs of the children.

The supreme aim of the ideal Training School is to show the teacher the organic unity that exists between herself and her pupils, so that she may feel and realize the feeling, that her life is theirs, and theirs in no less degree is hers; and that whatsoever she does, whether she eat or drink, she does all to the glory of development.

The road to such a result begins on somewhat stony ground. By the beginner all teaching is divided into two parts—authority, and other things. In this respect she repeats the history of the race of teachers, and for that part, of civilized humanity itself. That she should be found at this stage of development is naturally to be expected.

The training school does not aim to disabuse her mind of this initial importance of authority. It rather emphasizes and reinforces it. Good or at least fair results have been obtained when everything in the school life of the child has been mapped out for him by presumably wiser heads than his, when obedience is regarded as the crowning

virtue of the school, if not of life, and where liberty and its organization is left to the play-ground and the home.

Where, however, the school essays a large life, the problem is not simply to throw authority overboard, but to find its most advantageous limitations, to discover how in a kingdom of grace the law may be fulfilled as well as superseded. Helpful in this respect is the formula so well exploited by Bosanquet: "Use authority only to prevent hindrances." Honestly applied this means hindrances not only in the mind of the teacher but also in the minds of as many as possible of the pupils. They must therefore feel that there is something that is worth while going on in every recitation. The individual who hinders this may not feel at the moment its worth to himself, but the facts should be so that the teacher could easily show him that others of his comrades realize its worth, and sympathize with the teacher's effort to protect their best interests.

When no pupil feels that what is going on is really worth while, the disturber becomes a sort of revolutionary savior not agreeable to the teacher but perhaps not without benefit to the school. A desirable feeling is easily obtained in a school that is normal; in a reform school or penitentiary it might be different in which case the hindrance to be stopped or prevented is to be regarded as applying to what is going on outside of the school in the normal processes of society.

If something is to go on that is felt to be worth while by the children, the aim or end as far as it exists or can be got to exist in their minds is the first consideration.

This is both more practical and more difficult than any statement of aim as it exists in the mind of the teacher. Such an aim may be ever so soaring but yet entirely fail to work. A thought by which the teacher is asked to test herself is this: "At any time during the course of the recitation whatever the pupil may be doing if I could get a complete answer or look into his heart, would it yield me the aim as I have it written in my plan?" How often to the question, "What are you doing this for?" would one get the answer, "I don't know?"

If, however, the teacher in training believes, to such a question the answer would be, "Because I have to," "Because the teacher told me to," "Because I want to pass," she is encouraged to put these aims down in her plan, as the real aims which the children are working for. Generally, in such cases it is not long before the teacher is able to invent an aim which is more satisfactory both to herself and to the children. Work of this kind is described at length in the articles in this Bulletin by Mrs. Kleinsorge and Mrs. Sibley.

From this standpoint it is but a step to the further one where the children are regarded as capable of inventing aims for themselves. This is no doubt possible to a limited extent in work which is outlined by the teacher, in which the children may invent details. But there is something liberating in the consciousness of what is thought or felt to be a whole activity—something that is up to the full level of the planning and organizing power of the individual, and which if he has any capacity for will at all he must in-

vent for himself. This is not a power for which a genius is necessary, but something which should be the possession of every citizen of America. Volition and the constructive function is too much neglected even in our schools, better as they are in this respect than those of Germany or France at least. The work described by Miss Phillips focuses attention on this feature of the Training School.

Further than the immediate work and observation in the training school the teacher has the more mediate function of preparing and improving herself by reading and reflection, and by comparison and co-operation with others who work with the children. In the first place the teachers in every grade are not held to be severally responsible for merely their own individual work, but each is responsible for the whole grade. To this end she must find out, by observation and in meetings held for that purpose, what is being done in the whole grade. Team-work, as on the football field, is thought to be the most effective both for teacher and for pupils. If one person fumbles the ball another carries it on.

In order that this may be carried out with the fullest degree of voluntary responsibility an interesting resolution has been adopted by all but a very small minority of the teachers in training. They have agreed that their standing in the department of pedagogy shall be partly determined by their own judgment of each other's work. To this end a written test is called for at such times as they think best, in which each teacher writes out an account of her progress in as far as she can ascribe it in any significant way to her

fellow teachers. These recommendations or appreciations are to be collected and classified by a committee elected from their own number, with the Superintendent of the Training School, and a report to be made upon the standing, necessarily not of a mathematical character, of each teacher. Each teacher thus feels that the work of helping other teachers, co-operating with her, is part of her duty in the school.

It is also part of her opportunity. As a piece of training it provides not only that she shall be equipped for some subordinate position in the school, able to get along with her children, although always under the direction of someone else, but that she shall get some chance of training for the higher positions also, where a responsibility will devolve upon her as principal or superintendent, not only to judge as to the merits of her assistants but to tactfully yet effectively help them to improve. An increase of judgment, mercy, and faith, is not undesirable in such a relationship.

As a consequence of this attitude the pedagogical seminars are partly given over to the individuals either singly, or as is more common, in groups, who believe they have something to say or to discuss, gained either from reading or experience, which will be new and helpful to other members of the class.

A bit of real life, an act or a thing has probably in it more principles than are able to be taken out of it or be defined. And yet it is found helpful by most thinkers and workers to formulate what seems of a general character. It is with this view that I append as a summary the following

propositions, the last of which is no less important than the first. These, although dogmatically stated may help to throw some further light not only upon this article, but upon others in the Bulletin.

PEDAGOGICAL SUGGESTIONS.

1. Every child is an end in itself; it does not exist for the sake of gaining knowledge, power or skill, these things exist for it.

2. Planning with the children is better than planning for them.

3. Other people than those actually in the school room make plans for the life of the school, the parents, the trustees, the taxpayers, great educators in this country and abroad. They have a right to do this in proportion as they are willing to participate in or in proportion as their lives are affected materially or spiritually by the life of the school, but those whose lives are affected most should be permitted to have the first opportunity in the making of the plans. In as far as there is real life in the school room those who live the life should make the plans.

4. Present Need—That the children be given an opportunity to feel that they are the causes of a larger number of the events which fill their lives.

5. The children should ask a large if not the larger part of the questions. Applied to science this means that the children should invent many of the experiments. A real experiment is a question asked of nature. The person

who makes it expects to discover something. In your last science lesson how many experiments did your children invent?

6. The individual who "recites" or speaks or acts in the presence of a class or group, in a large number of cases should feel that he is a social organ. This is not attained when the individual feels that he is merely "expressing" himself without reference to others. Such self expression tends to conceit and rivalry, or timidity or backwardness on the part of those who do not assert themselves. It trains "showing off," "self consciousness," and pride of knowledge. In your last lesson how often did you find any child addressing any one but yourself? Was he telling you anything which he supposed you did not know? If not, what good did he suppose he was doing you? What good did he suppose he was doing any one else?

7. In a recitation a child feels that he is a social organ when he finds that he is speaking or acting for other people. This may arise when he says something which he has reason to believe other people want or need to hear, or when he says for others something that they wish to have said. The game of "Find the Button" when the children clap softly or loudly as one of their number draws nearer the object of his search, illustrates the feeling of being a social organ. The whole class is interested in the action of the individual whom they have chosen to find the button because they feel that they are largely the cause of his failure or success. All recitations should have in them an element of "Find the Button."

8. A child needs to be associated with other children in a group in order to feel his influence and in order to obtain natural influences from others. The size of the group should be proportioned to the child's ability to exert influences or feel himself a cause in the social field. This is necessary from the standpoint of fatigue as well as from that of effective work. The size of this group will be best obtained by allowing the children to form it for themselves. Such a group will last only as long as will be necessary to carry out the work for which it was organized.

9. In order to feel themselves causes, the children must make the whole of, or part of the plans.

10. In as far as the children make the plans, the teacher's business is to help, both in the designing of them and the carrying of them out. The teacher who stands off for fear of destroying the originality of the children, is really destroying their effectiveness.

11. The feasibility of the plan is the first consideration. This must be measured by actual conditions as found in the lives of the children. When proposed by the children the teacher may judge the plan not worthy of being carried out. She may not think the work proposed sufficiently educative. She should express this view freely to the children, yet not so dogmatically as to crush expression on their part. In the discussion the children may convince her that the work is worth while. If not, however, she should be free to exercise the right of veto. A broadly educated teacher will probably find it rarely necessary to exercise this right.

12. It is better, and felt to be better by the children, when something is accomplished, even under compulsion, gentle or otherwise, than when nothing or even nothing of consequence is accomplished.

PARENTS' MEETINGS.

COLIN A. SCOTT.

THE connection of the home is from many standpoints one of the most desirable features of a modern school. A graduate of a Normal School of nine years' training, once said to me: "I do not now teach as well as I know how, but only as well as they'll let me." This antagonism between the school and the community of which it is a part is most unfortunate and devitalizing for both sides. If the teacher is to organize her school socially or even for the benefit of society, she must carry along contemporaneously a social organization of the community in so far as it touches the school. She must awaken the desires of the fathers and mothers, and of others interested in education, for better things in the school. It is a law of life that one has more interest in persons or even in inanimate things in proportion as he does something for them. The teacher should encourage even small aids, and these should be from the start of a moral and psychological character rather than always confined to the material side. The teacher might well meet the hurtful meddling on the part of some parents and trustees by previously inviting their helpful criticism of, and co-operation in, her working plans. Such a teacher might well say, "I teach as well as I am encouraged by all my friends."

For the purpose of awakening an interest in the Training School, parents' meetings are held several times a year at which a program is offered. Stereopticon slides are shown, explaining and illustrating the work of the school, and a reception is held, during which the parents meet the teachers in training, and discuss the progress of the children under their charge. These meetings have proved helpful, not only in interesting the parents, but have served as a sort of review, in which the school finds itself portrayed, and thus rises to a higher consciousness of its value and its work.



THE KINDERGARTEN.

BY BERTHA MATSON ANDREWS.

HERE is an old story from India of four blind men who were led one at a time, up to an elephant and asked to tell what they felt. The first one touched the elephant's ear and said it was a great fan; another touched his leg and said it was a strong pillar; the third felt of his trunk and said it was a palm tree; and the fourth felt of the elephant's side and said it was a great wall. They then told these blind men that they had each felt different parts of the same thing and had judged according to their limited perceptions.

When the High School professor, the chemistry specialist, the Fourth Grade teacher and the kindergartner consider their own department as a unit, with no thought of its relation to the organic whole, we have fair prototypes of these blind men of India. But while specialists abound in these days, both outside and inside school houses, there never has been a time when there was such universal peek-



ing into one another's educational back yards. University professors are devoting their most earnest study to babies and kindergarten, and primary teachers are struggling with anthropology and bacteriology. That still further co-operation is necessary is conceded by all.

The heart of the public school system should be the Normal School. The heart of the Normal School should be the Training School and the heart of the Training School should be the Kindergarten.

That kindergarten training schools are established in 62 of the 176 Normal Schools of the country is the most prophetic sign of the kindergarten progress, that we have in America. Someone has said, "The day has happily now passed when the kindergarten dare take its stand on the sympathetic, charitable or sociological foundation alone. It may be all or any of these but to be worthy a place of true dignity in the educational world it must be pedagogical."

There is no denying the poignancy of that criticism, which has been hurled at kindergartners, concerning their self-satisfaction and tendency to consider themselves specially ordained and set apart from the great mass of teachers. Kindergartners are considered by even their most bitter opponents to have unusual enthusiasm for their work. While they are to be congratulated upon that quality, is there not the danger that they conceive of the kindergarten as the entire elephant, whereas it is but the legs? The proper adjustment of the kindergarten in its relation to all education, I believe, will be approximated by the establish-

ment of kindergarten training school in vital connection with training schools for other teachers, and at the same time, this establishment will tend to place the kindergarten upon a firmer pedagogical foundation. This alliance is true of other professional training schools; schools of medicine, dentistry and law are becoming closely connected with great universities. Greater power is possible from such relationship.

The kindergarten students in this school have in their Junior year, English, Nature Study, Psychology, Pedagogy, Art and Physical Culture in classes with the regular Normal students; hence in no way are these subjects seen from the kindergarten standpoint alone. To adjust kindergarten spectacles to all studies cannot help being narrow, but by looking at the kindergarten from the different subjects point of view a broader, more rational interpretation is possible.

It matters not if the student is to teach literature to high school youths, to lads of four summers or to eleven-year old boys, the fundamental study should be the same and each should know how the other is going to deal with the same subject, in order to cognate intelligently. For example in the study of Iliad, the preparation, in the form of mythical stories, began in the kindergarten and primary grades; the eighth grade teacher realizing this sense of the setting which the children have gained, is ready to begin work with the complete story.

The junior kindergarten students have some observation in all the grades and discuss the lessons observed

with the practitioner and the special training teacher in order to actually see and understand, in a degree, each part of the great whole.

During their senior year these young women have Philosophy and History of Education, English and Pedagogy, also with the rest of the seniors and half a year's practice in the primary grade. This practice work we believe to be of inestimable value to a well-prepared kindergartner. By such experience she cannot only better appreciate the standpoint, problems and scope of the work of the primary teacher but is better able to realize what the preparation of the kindergarten child for the first grade should be and how to correlate her work, more effectively with the primary.

The time will come when no primary teacher will be considered thoroughly prepared for her work, unless she is cognizant of kindergarten principles and practice and it is equally necessary that the kindergartner should know of primary methods and problems.

Not only is this broader aspect of education possible in a Normal School with its opportunities to realize the relation the kindergarten bears to the whole, but advantage is gained here by the presence of specialists who realize the entire scope of the work and at the same time can adapt the work to the kindergarten's peculiar requirements. It is possible to attempt to cover too much ground and we deem it advisable to look at some subjects purely from the kindergarten focus. For example, there is a half-year's course in Sloyd, which the Sloyd Professor has prepared specially

for the kindergartners. In this course they become familiar with the various tools and their use and they make simple furniture, garden tools, games and playthings, such as children from four to six years of age might be able to make.

The music specialist also gives work to the kindergartners with the kindergarten child in mind. The range and quality of the very young voices, suitable songs for this stage, treatment of monotones, the importance of the correct foundation of the musical education are necessarily worked out, as well as the training of the student's own voice, which is most advantageous in the small class.

Especially helpful to the kindergartners is the course in Domestic Science. By having access to the well equipped laboratory of the Normal the young women have actual experience in analyzing and cooking children's foods. This course includes the study of children's diseases and emergencies, sanitation and hygiene, the relative nutritive value of foods and wholesome menus, in fact, the whole question of children's dietetics. The children of the Normal kindergarten, also have advantage of these laboratories. While we were talking of the baker, we first all bundled into our kindergarten coach and drove down to visit the rather ideal bake-shop of Greeley-town, where the baker showed us his great oven and all his utensils, treated us to some delicious ginger-cookies and told us just how he made them. On the way home we decided to make some cookies ourselves and send the baker cookie for cookie. We should certainly need bread boards to roll them out on, so

one tableful of children went the next day, to the Sloyd room, to make them. The necessity of the Sloyd course was brought forcibly to the seniors in that experiment, for the young woman who prepared the cleats for the boards saved them the wrong way of the grain and twenty new cleats had to be made. But at last they were finished and a group of the oldest children mixed "the sugar and spice and all that's nice" with utmost care and rolled them out on the somewhat wobbly boards and proceeded down to the kitchen where they baked their cookies to all stages of brownness. We decided the baker excelled us in the cookie line and perhaps he would enjoy a valentine more than our burned results, but I doubt if the forty children ever tasted a sugar cookie which compared to those of that first tables' make.

That the New Education owes much of its impetus and success to the realization of the principles underlying the kindergarten is generally conceded. The permeation of the kindergarten spirit throughout all grades and branches of school life cannot help but give a new zest and enthusiasm to the erstwhile routine conditions.

This spirit is principally dispersed throughout our Normal School by the young women of the regular kindergarten course. There is also an elective class who are fitting themselves for primary grades and devote five hours a week to observation and theoretical work in the kindergarten. The other students slip in between classes and get a glimpse of the young child's world. A stray vacant period in their program, during the morning often finds them observing the games or a gift lesson. There is no

compulsion whatever in this observation work, and the fact that there is scarcely a moment that someone is not visiting the kindergarten, indicates the interest felt.

Lectures upon Froebel's philosophy and principles, of course have their place, but I believe the silent influence of a kindergarten in their midst, from which the body of students may catch a whiff of the beauty, spirit and value of its life, will do more actual good in the subsequent educational work of those students than any amount of theory possible. What are some of these influences which might help the Normal student in his practical work?

The freedom, lack of constraint, in fact, the homey atmosphere of a good Kindergarten is generally the first noticeable feature. The child wishes a drink of water, he quietly gets up from the table or leaves the games, without disturbing the children or the teacher with the ever present raising of hands and asking permission, goes over to the low table, covered with an oil cloth mat, which the children wove for the water-pitcher to stand upon, and helps himself. If another child comes up at the same time, the opportunity to pour out the water and hand the cup to the new-comer, is felt to be an honor.

If the children need another box of blocks, a pair of scissors or a stick, for the tongue of their tablet carts, they are sent to the cupboard, to find it themselves. A stranger might think there was great confusion to see different children walking, even skipping about, but they are learning to wait upon themselves and surely the pedagogical principle that each child should feel himself the cause of as many

events as possible, must begin in the minutest details, if later we can hope to have him truly feel self-reliance.

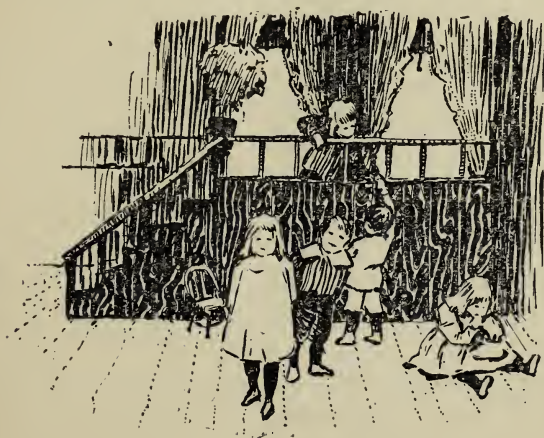
The small groups of children about the tables, building on the floor, playing at the sand-table, drawing at the black-board either co-operatively carrying out some thought or individually expressing themselves, gives the thoughtful observer the suggestion of even older children enjoying, two or three being gathered together with the cord of similar interests, rather than the idea of age being the chief point in common between the large group of children.

The student observer may see practical results of child study when he finds upon opening the kindergarten door, not only such groups as I have indicated, but one small blue-aproned girl playing by herself on the floor, with a doll and the kindergarten bedstead; a curly-headed lad is up on the balcony with a picture book, but he spends most of the time looking out of the window at the snowflakes fluttering down; another child is sleeping on the couch in the little adjoining quiet-room, which, by the way, every school-room should have; in another corner of this quiet-room curled up in the big rocker, is the latest comer from the home into this garden, eating an apple.

All this is, of course, the result of close observation of the children, and when signs of fatigue and nervousness are shown, they are sent off by themselves. Records of the children's birth, home conditions, nutrition, physical defects and characteristics, with photographs of each child are kept, from the entrance into kindergarten, and when the children pass on from grade to grade, these records are

added to and handed on from one teacher to the next, and it is hoped the individual treatment which is begun in the kindergarten may be carried on through each grade.

The balcony, of which I spoke, fills several long-felt wants. In the first place the windows of the kindergarten room were so high that only by tip-toeing on a chair could the trees be seen; then we needed cupboards low enough to



easily take out and put away the material; we also wished a place to send a child who had finished his work or was tired; and most of all the fun of having an up-stairs with some tiny banisters to slide down, a balcony from which to wave to returning soldiers, and a bed-room for our precious doll, Bluebell White! At present we hygienically have the kitchen upstairs, as one of the hardware men of the town, whose daughter is in the kindergarten, presented us with

a perfect cook stove, in which real fires have been made and water has actually boiled thereon.

One of the most potent influences which is felt in the kindergarten is undoubtedly the music. We have no stated times for singing, often, while at work one child may start a song which is caught up by the other children at the table and then those at the next table join in, until all catch the spirit and sing because they cannot help it and work the better for this spontaneous outburst. It was very cloudy during the morning circle and we could not sing good-morning to the sunshine, but while we are having the gift lesson, one child spies a ray of sunshine on the floor and starts our song, which all heartily join.

To take singing out of most children's lives, is like taking sunshine from the day. They love to sing and the more spirit of song we can bring into our work, the better.

One young woman who was teaching geography in the sixth grade, heard the kindergarten children singing the "Miner Song" one morning. Her class was just then studying coal mines, and catching the rhythm and thought of the song, she taught it to those older children, to whom it gave an added interest in the subject. Would it not be advantageous to thus correlate singing, in so far as possible with all subjects throughout the grammar grades, rather than relegate it to the accustomary short music period?

The value of the different phases of instrumental music as factors of kindergarten life, appeals to the thoughtful observer. This school being situated at the edge of town, the kindergarten children are carried to and from by the

coach, and so the majority arrive together. They enter the room, full of the freedom and joyousness of the bright April morning and our musician responds to that feeling by playing delicately, yet with spirit, Mendelssohn's Spring Song; the children seat themselves in the circle and gradually the music changes from this happy out-doors atmosphere to quiet, reverent music, such as Handel's Largo, or Schubert's Rosamonde, which prepares the child for the morning prayer and hymn.

The observer cannot fail to realize what an ally music may be in producing different moods in children, for it is found that they respond readily to various tempos and musical suggestions.

Much might be said in regard to the music for the marches, but suffice it to say, that the standard for that branch of music, as a rule throughout schools is far below other musical standards, hence special emphasis is placed here on the type of marches played. Only music of the highest order is played to our children, for just as the best art and literature are brought before them to establish the right standards, we believe they should have and hear only the best in music. We sometimes say "We have been telling stories and now let us ask the piano to tell us one," and with no further comment, the musician will play a short bit from, perhaps, the duet from Mozart's Don Giovanni, or the Andante from Haydn's Surprise Symphony. The same story must be repeated often to be of any value to the child, but we have frequently heard children humming parts from the piano's story after a few hearings.

No true idea of the kindergarten spirit could be gained from this rather general survey of the work, were there no mention made of our endeavor to bring the children closely in touch with nature.

The absorbing interest which all children have for alive, active creatures, their delight in digging in the earth, their pleasure in watching nature's phenomena and their joy in just being out of doors, is sufficient to justify Nature Study, as the point of departure for the program work. To foster and broaden the children's natural love for nature, then underlies the thought from September until June.

Froebel says, "every contact with nature elevates, strengthens and purifies." We try as far as possible to have the children experience this life at first hand. We wander in small groups all over the campus, and the surrounding fields, finding, hearing and seeing many things. When we wish to visit some particular spot, too far away to walk, again the coach is called into service and carries us forth to see, perhaps, the squirrels down in the park, the sheep on a ranch, the potato cellar or a hay stacker at work.

There are so many interesting animals and industries surrounding these children that we rarely talk of foreign ones, for we believe that such external matter should come later, and in the kindergarten these children should be given an opportunity to talk over and reproduce that of which they already have some apperception.

The children, of course, strengthen their observations by various reproductions. Dramatization is the favorite

one and we are wheat fields, toads, trees, flowers—flowers going to sleep in the fall and awakening in the spring, squirrels, birds and butterflies, according to the dominant interest. By painting, cutting, drawing, modeling and various other mediums, the children give back their impressions.

But all this is mere surface work, unless we can catch some ray of the great thought that nature is simply a revealer of the higher life, and that by an early recognition of an unseen power in the forms of nature, we can help the child to gain some impression of the spirit of God, and so our nature work is not only a preparation for botany and zoology, but is symbolic of much of our ethical teaching.

The positive rather than the negative treatment of children, their gradual appreciation of law through experiencing retributive rather than arbitrary punishment, in fact the nice adjustment between spontaneity and control, as exemplified in true kindergarten practice has deep lessons for all educators.

Froebel says: "Between educator and pupil, between request and obedience, there should invisibly rule a third something to which educator and pupil are equally subject." This is the best, the right, the law which affects each member, old and young, in the kindergarten. The truth of this has been forcibly brought to us this winter in the shape of a cuckoo clock, which was given to the room at the Christmas time by the young women of the kindergarten classes.

When the cuckoo speaks, it speaks to all and all must obey. It is not that I tell you it is time to march, play games or go home, but the clock tells us. It stands for law and order, it is impersonal, steadfast and is fairly alive to the children.

Many are the lessons and much the delight and interest this clock has given us. And when it is quiet and the people stop to listen, the soft cuckoo, cuckoo, cuckoo, may be heard far down the hall and in many rooms. It is a soft but penetrating voice and some say it may be heard way upstairs; may it not be indicative of the permeation of the Kindergarten spirit throughout the school?

CHILDREN'S AIMS.

BY BELLA B. SIBLEY.

PARENTS have aims for their children's future. The father wants his son to be a lawyer, and insists that his school life shall be directed towards this end; when the truth is, the boy has in him potentialities, which, if developed, would make him a successful brick mason, with sufficient business ability to conquer the world from a financial standpoint.

The teacher has aims for her pupil. She wants him to do the work of the class and pass with flying colors into the next grade. In order to attain such an end, it is necessary for her to push this aim upon the child, even to the extent of cram and force.

The child has a large fund of knowledge on hand when he enters school, which the teacher should plan to utilize. If he comes from the kindergarten he has studied nature in a very simple but a beautiful way. In the plays and games he has learned some of the great fundamental principles which govern society. Other children have rights which he must recognize if his own are to be acknowledged. If he comes directly from the home, he is not so well developed socially, nor are his senses so well trained; yet we believe in the educational value of the home. In it every

interest springs up easily and spontaneously. It is the most favorable environment for the growth of sympathy. With but few exceptions the family furnishes an atmosphere for the development of the best in the child. He has learned in the home to think and converse in the vernacular. Nature, art and music have had their refining influence upon him. When he comes to school he is familiar with many of the habits of pet animals, the nesting and life of birds, temperature, wind, sunshine and their effect upon plant and animal life. Thus the small circle of the family prepares him for the larger circle of the school, and the school for the greater responsibilities of the citizen.

The primary teacher takes the knowledge which the child has already acquired and uses it as a foundation for his further mental development. This knowledge is related either to nature or man. It is disconnected and fragmentary, and it is the work of the school to connect and expand it. With this in view the teacher takes the child to the great book of nature. "As he learns to read it he becomes acquainted with its Author." Take the child out to nature rather than bring twigs, leaves and flowers into the school room.

Nothing must be undertaken in the work without an aim, which the children can appreciate and adopt. The primary teacher must invent such aims as the children will make their own. When this is done, we believe that it will tend to develop the children in self-reliance to such an extent that they will soon be able to set up aims for themselves. They, however, will begin to do so very gradually

and will require encouragement and suggestions from the teacher. Primary children are not, as a rule, sufficiently well developed to work out many of their own aims; but everything should tend in that direction. Very early in his educational career, the child will, if properly directed, begin to suggest his own aims for at least some of the school work.

The following is an example of an aim given by the teacher which the children can readily adopt: "Now we are going out on the campus to look carefully at the trees. When we come in, we'll play that this part of the room is the campus. We'll draw the walks on the floor with chalk, then we'll all stand up and be trees such as we have seen, and have the Second Grade guess our names. If they guess correctly, they may write them on the board." (The children adopted the above aim. It became their own, and they were very enthusiastic in trying to realize it; consequently, they succeeded.)

During the excursion the teacher talks with the children about the way they think of representing the trees they have chosen; invites them to make suggestions to one another as to improvements. In other words look for means to realize the end. When they come in they arrange themselves according to the aim. As the Second Grade guess their names they write them on the board. The children construct a few short, simple sentences containing some of their tree names. Write on the board. This aim contains work out of doors, gives the child opportunity for express-

ing himself in action, and emphasizes the social development of his nature.

Continue such work in story, song and action, giving the children blackboard imaging of words and sentences in connection with everything, thus laying the foundation for oral expression in reading and written language. Begin with the home and lead the child out in all directions into the great life about him, and connect with life which preceded him in man and nature.



Trees, grass, flowers are studied with the thought of their being homes of birds and insects. Protection from enemies, weather and social life among birds, animals, insects, are pointed out, compared, related. Nature myths and fairy stories which carry the child back into Grecian and Norse life and primitive times are given, thus con-

necting the past and present.

STUDY OF THE POPLAR TREE—SECOND GRADE.

The children gather autumn leaves, press and work out designs for borders and panels.

One of these borders was placed above the blackboard in the primary room. The design was selected and the leaves were collected and pressed by the children. The leaves were pasted upon a background of dark, rich

brown velvet paper. The blending and shading of the soft colors of the autumn leaves with this background is a study in art, which develops the child's color sense in a very marked degree.

Exercises are given in the quick recognition of trees from the observation of leaves.

As is customary in many of the best schools, we use holidays and special occasions to study the homes of the Pilgrims, and the materials of which they were constructed.



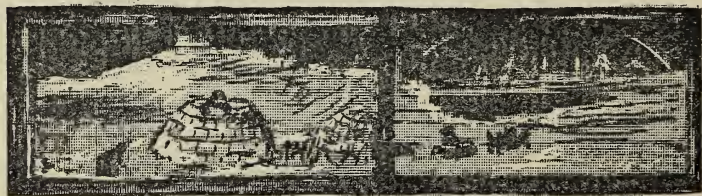
Compare these homes and the first Thanksgiving with the child's home and Thanksgiving as it is to-day. The teacher adapts her own material from the best literature and art

on this subject, emphasizing modes of travel and lack of machinery.

Indian life is taken up, Hiawatha's home, childhood, grandmother, food, clothing are studied. Children can not understand complicated forms of life. They can not construct the Parthenon or the Pyramids of Egypt or even a house such as they live in, but they can construct an Indian wigwam.

In story form the birth and home life of the Christ Child are given.

January is given to the study of the Eskimo, because our climate in this month is as near that of the Far North as it ever will be. The construction of homes, furniture, habits and life of the people, food, clothing, modes of travel, dogs, are taken up; bring in the idea of trade. Ask such questions as: "What have we that would make the Eskimo more happy?" "What has the Eskimo that would keep us warm this weather?"



It is the custom in the primary room to put a frieze around the top of the blackboard, about fourteen inches deep, representing a connected thought that we are studying. As we take up different phases of the work, these friezes are erased, and new ones modeled on the board in

chalk and charcoal. The primary practice teachers do this work. For instance, the January frieze contains a representation of Eskimo life, homes, Aurora Borealis, icebergs, sealing, and dog teams traveling south to a post house, on one side; the other side represents Greeley conditions of life, railroad trains, horse teams traveling to the post house with sugar, better building materials and tools for the Eskimo.

Three charts composed by the children, printed by the teachers and given as reading to supplement Eskimo literature.

As Spring approaches, Greeley agriculture life, the cultivation of the potato, giving the story of its introduction into this country, the manufacture of starch, the sugar beet industry are studied, and excursions to the beet sugar factory are taken. A system of irrigation is worked out on the sand table.

As the weather becomes warmer, a child's home in the hot belt is taken. The climate, plant life, animal life and habits of the people in the Torrid Zone are given in story form.

Children study architecture from pictures and observation of buildings; select ones they like best; draw plans of houses they could construct of straw-board. Each child calculates how much material he will require for his house. This is supplied him. Lines are drawn geometrically straight, and rulers used with some degree of accuracy. The floor and four walls are completed and a sliding partition is inserted, dividing the house into four rooms. A roof is placed over it. At this stage of development it be-

WHAT AGOONACK'S PEOPLE WEAR.

Agoonack is a little Eskimo girl who lives in the far, far north. It is very, very cold where she lives. Do you want to know what kind of clothes she wears?

She looks like a white bear-cub when she is far away. When she comes closer you can see her little brown, plump face, peeping out of her big fur hood.

Agoonack wears a jumper of white bear-skin. She has leggings made of the same kind of skin. She has a little pair of moccasins made of warm sealskin. Her mamma sewed her stockings of birdskin and left the soft down on to keep her warm. Her mittens are made of dogskin.



Agoonack is running to meet her papa and mamma. They are dressed very much alike. They each have two suits of sealskin. The mother's hood is bigger than the father's. It is used to carry Sipsu, Agoonack's brother.

The father hunts the animals. Agoonack scrapes the skin with a queer knife to make it soft and nice. Then her mother cuts out the clothes and sews them with a quill for a needle and reindeer sinews for thread. Next November all will get a new suit and they will celebrate.

Dora Ladd.

Second Grade.

comes necessary for the young architect to have a lot upon which to build his house. A part of the primary room floor is marked off by streets, thus representing a city. Blocks and lots are laid out and numbered. The teacher acts as real estate agent, and the children choose a notary public and a recorder. The members of the class divide themselves into groups of twos or threes. These groups go, one at a time, with the real estate agent, select their lots, pay for them with toy money, go to the notary public and have a deed filled out, signed and sealed as follows:

DEED.

This deed, made this 7th day of March, 1902, between Alice M. Allen, of the County of Weld, and State of Colorado, of the first part, and Charles Newton, of the County of Weld and State of Colorado, of the second part.

WITNESSETH, That the said party of the first part, for and in consideration of \$1.00, hereby sells and conveys unto the party of the second part the following land in Weld County, Colorado, to-wit: Lot one in block two hundred, in the Town of Greeley, according to the recorded plat thereof.

In witness whereof, the said party of the first part has hereunto set her hand and seal, the day and year first above written.

ALICE M. ALLEN. (SEAL)

STATE OF COLORADO, COUNTY OF WELD, SS.

Acknowledged on March 7th, 1902, before me, a Notary Public in and for said County and State.

JOHN JONES,

(SEAL)

Notary Public.

This done, he goes to the recorder and has his deed recorded, after which he proceeds to erect his house upon his lot on the school room floor.

Thus the children become land owners; and as soon as their houses are built they have them insured. The teacher acts as insurance agent, and a typewritten insurance policy is issued to each owner of an insured house. The premium is paid when the policy is taken out, and an assessment, according to specifications in the policy, is due the first day of each month.

Taxes are due and payable May 1st, of each year.

On a piece of straw-board the size of the kitchen floor each child makes an oilcloth, the pattern for which has been developed as follows: The children observe the oilcloths on kitchens in homes, visit furniture stores, study patterns and colors, select the ones they like best, then draw a pattern of an oilcloth for their kitchens, and color it with wax crayons. The probabilities are that each member of the class will have a different oilcloth. This is what the teacher wishes. It develops the child's individuality.

Rag carpets are woven for the other rooms and a study of fiber plants, silk and wool, is taken up in connection with the weaving. Pasteboard furniture and dolls are made. This work forms a link between the kindergarten play and the study of industries and commerce.

We shall improve upon this next year by having each child make a house of a different size and shape.

The children have studied during the year the life of primitive people, animal life, plant life, and the life of man

in the three zones; compared, contrasted and connected with their own home life and environment. In a simple and interesting way they have studied exchange of produce, commerce and modes of travel. They have compared the Indian snowshoe and the Eskimo dog team with the railroad train and the bicycle; the camel of the desert with the horse. The myth and the fairy story have been copiously introduced all the year, dealing with life in ancient times. Thus a broad foundation has been laid for a further study of history, literature, geography, trade, commerce, travel, manufactures and invention. By means of sand, clay, strawboard and wood the children have been led to imitate the industrial life that comes within their range of experience. Contemporaneous, ancient and primitive life have been connected in this work and found equally simple, furnishing a wealth of material from which to select children's aims.

READING.

Reading, oral and written language are emphasized in the primary grades. The partiality shown these subjects is justified by the fact that language is the instrument that makes possible human social organization. Not only so, but much of the child's mental development depends upon his ability to think in response to the stimuli received from the printed page. Teachers in the upper grades, High Schools, and even in our colleges, admit that it is exceedingly difficult for pupils to master the thoughts that words represent.

On the other hand, it is easy to train pupils to memorize words; but in doing so they are neither taught to read, nor to study. Their minds are concentrated upon the empty sounds, the characters, the form, the ability to pronounce words, which soon becomes habit, so that when hard, continuous study of text is demanded, the pupils have no power of thinking.

Children are taught from the beginning that pronouncing words is not reading. They are encouraged to master the thought and express it. No one method is used exclusively, but many methods are studied by the practice teachers, for the purpose of absorbing the spirit of those who made the methods.

Reading is correlated with everything that is done in the primary grade. For instance, the teacher begins to tell a story. When the most interesting point is reached, a sentence written upon the board gives the climax. The children are anxious to master the thought. The sentence contains something that it is necessary for them to know. The teacher assists them to help one another until they find out what it says. It is thought, not words, that they are eager to get. When they get the thought they spontaneously express it. While getting the thought they incidentally master the words. Or a story is begun as above, but books are given the children, page and number of paragraph are written upon the board, children study the paragraph containing the climax of the story, tell it in their own words, or write it upon the board, to be improved upon by other members of the class. Thus the test of reading is

the ability to study the text and express the thought aroused by it.

The above are two of many little devices that are used as means to the same end.

Toward the latter part of the first year the work in phonics is taken up. Slow pronunciation of words, with which the children are familiar, is given. In this way the child does not come suddenly to a new subject, when he takes up phonics, he simply takes a little step in advance, in a subject with which he is already familiar. He identifies the separate words in the sentence he uses, and in the next place, recognizes the separate sounds in each word. The latter part of the second year new words are pronounced by means of phonics.

LITERATURE.

We consider that the myth and the fairy are the keys which unlock much of the best in art and literature. For instance, the children have been observing trees, flowers and the forces about them. They have been looking at pictures and singing songs. They are given a beautiful myth which enhances their thought, interest and observation. We select from the following:

Indian Myths from Hiawatha.

Nature Myths from the Greek and Norse Mythology.

Fairy Stories and the Odyssey.

MUSIC.

FIRST YEAR—FIRST HALF.

Music.—Songs and exercises from teacher's pattern. Tonic, Dominant and Sub-Dominant chords. To sing and write exercises from memory. Primary and secondary forms.

FIRST YEAR—SECOND HALF.

Music.—The beat divided into halves, into quarters. Ear exercises. Rate songs.

SECOND YEAR—FIRST HALF.

Music.—Review. Two part exercises from manual signs. To sing every interval possible using only one, two, three, five and seven of scale. Exercises sung, written, pointed and indicated by manual signs from memory. Each exercise to be sung to any given syllable. Two part rounds. Ear exercises.

SECOND YEAR—SECOND HALF.

Exercises and songs beginning with half beat tones. The beat-and-a-half tone. The slur. Two-part songs. Ear exercises. Daily use of manual signs and modulator. familiarize pupils with all rhythms employing half-beat tones and quarter-beat tones. Record of voice compass.

SUBJECTS TAUGHT IN FIRST AND
SECOND GRADES.

Reading, Writing, Numbers, Literature, Language, Nature Study, Construction Work, Industrial Art, Drawing, Story Illustration, Clay Modeling.

TO WHAT EXTENT CAN CHILDREN FORM THE COURSE OF STUDY?

BY ELEANOR M. PHILLIPS.

IN the fall of 1901 it was decided to allow the pupils of the Training Department of the Colorado State Normal School more freedom in selection of work and method of accomplishing it than had been practiced formerly.

It was suggested that the children in the third and fourth grades (about forty in number, seated in one room) be allowed one or more periods a week during which time they might do what they considered most worth while—the children planning for themselves as well as executing their plans without the teacher's assistance, except where they felt the need of her help.

The matter was presented to the children in this way: If you should have one-half hour each week to do whatever you think most worth while, what are some of the things you would care to do? Many answers were given—most of which showed very little thought, due perhaps partly to the fact that the children had not had sufficient time to think of the matter, and partly to the fact that the idea of planning for themselves in school was such an innovation that they were unable to adjust themselves to it readily. In the

main, the answers were such as the children thought would most please their teacher; accordingly they suggested what they considered the most suitable occupation for school—such as “I should paint.” “I should study my reading lesson.” A number suggested various subjects for nature study, as this work had been taken up with some enthusiasm. The teacher emphasized the fact that they need not feel that they must do such work as they were accustomed to do; but anything they cared to do that could possibly be done at that time and place. The teacher even ventured so far as to relate some of the experiences of children in another school where a similar plan was tried. This was intended to show the pupils that there were some things thought to be worth while which seemed quite foreign to their ordinary ideas of work in school. Yet the teacher mentioned these with fear and trembling, lest the pupils might copy others’ ideas and thus not use their freedom to the extent that was allowed them. However, at the next conference nothing mentioned by the teacher had been adopted by the children, neither had their ideas developed to any marked degree. They still in the main, when asked for their plans, stated that they wished to paint, or draw at the board, or complete some work begun in Sloyd, and a few wished to read and do number work, while many had no plans at all. Some of the boys planned kites and a number of girls brought quilt blocks and pillow covers to make. For some time the teacher allowed the drawing, painting and reading—which were planned for one day only, and then not very clearly—because she realized that

they must have a little time to make the transition from the method of the teacher's planning everything for them to this method of the children's inventing some of their own plans.

Within a few days a Fourth Grade boy brought a drawing of a hay-stacker, explained it to the teacher, telling how large he wished the hay-stacker, and just how it was to be used. He had the promise of another Fourth Grade boy to assist him in the work. The boy with the plan went to



the Sloyd room where the teacher gave him a large sheet of paper upon which to make a working drawing. This consumed the period and the boy waited anxiously for another hour for this work. They completed this hay-stacker in about six weeks, having one period a week in

which to work except the last two weeks when the time was extended to two half hour periods a week.

The time was increased, indeed for all the pupils, at their own request because of their growing interest.

An elaborate plan of a modern cottage was soon brought in by a Fourth Grade boy who was the son of a carpenter, and who had a very clear conception of the steps necessary for the erection of a house, from the original plan to the painting of the house. He seemed to have very little idea that this cottage would be built; but was confident that he was capable of building it if he had the material. When asked where he would place it he pointed out several good locations on the campus. The teacher suggested that he reduce and simplify the plan, and make an estimate of the cost of building the house. This he did, consulting the lumber company, and deciding that for \$23 he could build a nice little cottage with two small rooms. He also said that with the assistance of four or five boys whom he selected to help him he could have the work completed by Thanksgiving. This boy had so much confidence in his own ability and was so enthusiastic over his plan that he had no difficulty in securing plenty of assistant carpenters. There was talk of trying to raise the money among the pupils; but that seemed hopeless. Finally the boys were told that the school would appropriate \$8.00 for the Third and Fourth Grades to use as they thought best. Now if this house committee could reduce the size and expense of the house so that it could be built for \$8.00, and all interested in the investment of this money should agree to

its being used for this purpose, they might be able to carry out their plans.

By this time, which was six weeks after the first plan had been presented, many other members of the school had caught the inspiration and had planned (a very natural thing to do) furniture, such as tables, book-cases, chairs and bedding, towels, couch pillows, etc., for the new house.

Notwithstanding their interest, the appropriation of \$8.00 to this scheme was a very crucial point which led to a great deal of discussion on the part of the pupils. The matter was placed before the school in this way: The school is willing to give this year about \$8.00 to this room to use in whatever you think is the best possible way. You will need to think the matter over carefully and be ready to give your decisions in a few days. At the appointed time for the next discussion some children advised buying a case for their room in which to keep relics brought by them for study and ornament. Pictures for the room were strongly urged by others. Many other things were mentioned; but the large majority favored investing the money in the house, which would prove to be of service as "a recitation room" and "a place in which to keep many articles made in school." The enthusiastic majority—including all directly interested in building and furnishing the house—convinced the minority of its value, and when the votes were cast it was seen that the pupils were unanimously in favor of spending the money for the house.

The boys ordered the lumber; but when actual work was to begin a seeming hindrance arose. Some of the boys

were unaccustomed to handling carpenters' tools, and the supervisor of the Sloyd department could not allow them to take valuable tools out to the field. The boys suggested bringing tools from home; but on presenting the matter to



a young man in the senior class who understood manual work, he kindly offered to be present as often as possible. This allowed them the use of the Sloyd tools. In one of their reports of the progress of the work they said of this young man, "Mr. S. never helps us, he just makes us

think." They explained that he would ask them as the work advanced which of several ways would be the best to pursue.

The building progressed rapidly for a time, but was not complete, as the boys had expected, at Thanksgiving—only the frame was up. There were many causes for the delay, such as illness of the leading carpenter and absence of Mr. S. At Christmas time, also, the house was incomplete; but the enthusiasm was still intense.

While this house was progressing, other groups were planning and executing work. A sewing group was formed. This committee was very enthusiastic. The children contributed material for various articles and when it was impossible for them to bring what they needed from home they assessed themselves a few pennies and purchased material.

When some money had been brought one of the group suggested that they must select a member to take care of it. So they elected a treasurer. Some one proposed that another member keep account of all that was done, and a secretary was appointed. A president was also elected.

The idea of estimating the time that would be required to accomplish a certain piece of work was not introduced at first although this seems to be such an important element in all working plans.

One of the seniors, Miss F., who taught these pupils at another hour in the day, became interested in this work and offered to assist. She made no effort to direct the children; but let them know that if she could be of service at

any time they might call upon her. In one of their reports they stated that they fringed a towel; but did not know how to keep it from raveling, so Miss F. showed them the kind of stitch to use for this purpose.

Frequently plans were changed as the work developed. Two girls were making a comforter of blue cheese-cloth tied with white knots. When it was almost completed they decided it would be prettier with a ruffle around the edge. They took four cents from the treasury and bought material for a ruffle.

There was little tendency to be fickle on the part of most of the children. Drifting aimlessly from one plan or idea to another, or from one group to another, was rare, yet the children's plans were constantly changing as their ideas developed.

The furniture group was rather a changeable one. It consisted of smaller divisions—a chair committee, a book-case committee, a table committee, etc. The chair group at one time, included nine children, each of whom was to make a part of a chair. One boy was selected by the group to make the working drawing. Another was appointed to superintend the work. This task he found to be difficult. When the parts were finished some of the members had to drop out for a time while a smaller number—two boys—put the chair together. This plan did not prove to be satisfactory as the legs of the chair, for instance, were not sufficiently uniform. The leader had not been able to see that all followed the plan. The number was too great for

him to supervise. It was decided that for so large a number to work on one chair was not advisable.

The original idea seemed to be to have a set of chairs all alike, and one or two rockers. The first chair was criticised because its back was too vertical. Although it was a strong little chair that "would hold the weight of the teacher" as the children proudly declared, yet it was not very artistic. To enlarge their ideas of beauty in furniture, the teacher brought pictures of various chairs and encouraged the pupils to do the same, but without requiring them to accept these suggestions, or even encouraging them to do so.

This group was not as well organized as the sewing group. Children were accepted or rejected more readily without seeming annoyance to those concerned. This may have been due to the fact that making chairs was rather a newer occupation than was sewing to the sewing group, and experience was necessary in order to show the children what was a good plan to pursue.

Not only was the artistic side a perplexity, but other obstacles presented themselves. After planning the chairs it was found that the Sloyd department could not furnish material for the furniture and the pupils must secure this in some other way. A boy from another group, whose sympathies were aroused, brought a nice half-inch board. Several children brought good pieces of boxes that worked up well into furniture. Sand paper and nails were also furnished by the children.

The house was building; the furnishings were on the way; and now the need of dishes suggested itself to a thoughtful boy. The children hooted at the idea, thinking for the moment that it was impossible, but when he explained that he had in mind clay dishes, many who had joined no group were anxious to help him undertake the work. The pupils in these grades are usually very fond of modeling in clay. Many of the group, however, were found to work aimlessly, soon to tire of the occupation, and finally to drop out without action being taken by the other members.

A secretary was appointed to keep a careful record of all articles made. She was selected because of her excellent penmanship. Her reports were placed in a little book made by the children for this purpose. A president was appointed to manage things, such as passing the clay, and the papers to protect the desk, seeing that everything was properly collected and the good pieces of work preserved. Some trouble arose as the president seemed inclined to exercise too much authority in regard to what pieces were suitable to be preserved. About this time one of the girls withdrew from the sewing group, thinking that she was not appreciated there. This group was sorry to lose her; but could not induce her to remain. She at once was invited to become president of the clay group.

Other minor groups were formed, and several individuals worked alone. One boy made knives and forks and spoons. He invited no one to assist him and no one requested to be allowed to join him.

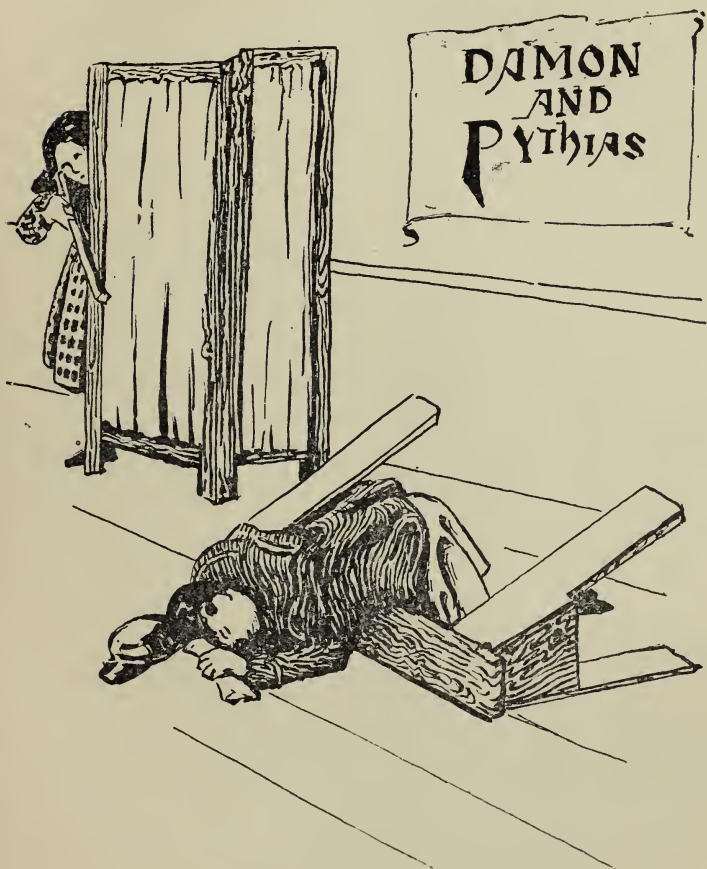
A brother and sister made a foot-stool—not from an original design, but from a model in the Sloyd room. One boy made some pretty designs in wood carving and wood burning.

At different times when a subject presented by a teacher in some regular work was thought by the pupils to need their attention they asked permission of their committee to waive the work they had planned and attend to this. The following is an incident of this kind: The teacher of Fourth Grade literature had told the story of Damon and Pythias, and the children were trying to act it out in class. There arose much discussion in regard to the proper expressions to use when presenting the story in the new form of a drama. The teacher suggested that a committee from the class be appointed to write the drama. If their arrangement were accepted by all, the play would be given accordingly. Several girls were selected for this work. When the next period for the work planned by the children came, which was the same afternoon, the girls requested that they be allowed to leave their groups and do the work assigned by the teacher. When they were in a small room by themselves for the purpose of writing the drama, they agreed to play it as well as write it, and invite the other members of the Fourth Grade and some of their teachers to witness it. As this was Friday, and they had decided to give the play on Monday, they must get their invitations out at once. When the teacher entered the room all were rushed with work—some writing invitations, others programs, and a few the drama. Groups had been formed within the



group—division of labor was felt to be the most effective plan. One girl stated that Bessie was managing the work,

and Bessie explained that after all were started she wasn't needed as manager so she was helping to write invitations.



This committee requested the use of the room for practice after school that evening. The parts were learned, and very simple costumes were planned, each girl telling what she could bring or make. Only a few things were to be made; a crown for the king was one of these.

On the following Monday the play was given at the regular hour for the literature lesson. The audience was requested to offer criticisms. These were kindly accepted, and the cast decided to improve upon the play and present it before the whole school at general exercises if the permission of the president could be obtained.

One of the criticisms made was that when the wife of Pythias received the note containing the king's decree that her husband must be executed, she fainted; but the audience had no way of knowing the cause of her faint. The next time it was played she read the note aloud before fainting.

While this was not strictly work which the children had originated, the plan of giving the play before an audience was entirely their own.

The pupils at various times during the day wished to tell what work they had done or planned. The teacher suggested that the time for other regular work should not be taken for this; but if they wished occasionally to devote the period set apart for work planned by themselves to reports, each committee that had something worth giving might report before the whole school.

The first report was so lengthy that the allotted thirty-five minutes were not sufficient, and the pupils agreed to continue on the following day. This report was extremely interesting. The teacher asked the pupils what committee they would like to hear from first. Some one suggested the sewing group. Their report was well planned, and that entirely without the teacher's help. The president took charge, calling on the members of the committee to place all articles made and being made on a table in front of the room. Then the secretary was asked to read the daily minutes which showed the official workings of the committee, where articles were obtained, how money was raised and expended. The president then called on the different members to show and explain their work, which each did, answering any questions asked by the school concerning the original plans or the method of work. This report was so interesting that it proved to be a great stimulus to some of the weaker and not so well organized groups. While there was so great a variety of work exhibited yet the report showed a unity of purpose and a helpful spirit.

Up to this point the work has been considered from the detailed and concrete side. It may be profitable to note some generalizations drawn by the teacher.

There are frequent opportunities for the pupils to teach one another in this work. The very effort of the child to show his fellow worker how to improve reacts upon himself. He becomes a more severe critic of his own work.

But perhaps a more important feature in this method is the confidence the children gain in themselves, and their

increased ability to set forth clearly their ideas and plans. Early in the work, criticism by the teacher was likely to result fatally, as the children weakly yielded to her suggestions, giving up their own plans and accepting her ideas without any reason whatever except that she was the teacher.

Later there was seen to be marked development in the entire room. The child who had gained confidence in himself gave his reason for the faith that was in him and often convinced the teacher. There were two very extreme cases where pupils who had been diffident were transformed into boys with strong opinions and clear reasons for these opinions. These two boys were both on the house committee and felt the weight of the responsibility.

The helpfulness of the children to each other has been mentioned. Closely related to this is the assistance the pupils gained at home. This was not the kind of help that parents give when they compel their children to learn a lesson; but help which was warmly soliticed by the children. Lengthy papers and difficult drawings have been worked out at home with the happy prospect of carrying out these plans at school. The parents contributed not only with their ideas, but assisted in material ways. It seems to be an efficacious means of leading the pupils voluntarily to take their school work into their homes.

The element of drudgery is made easy by the anticipation of the materialization of their own plans. For years we have quoted among pedagogical principles: "All know-

ledge to be most effective must be accompanied by a glow of interest." It is a principle which all teachers labor earnestly to observe, often even introducing artificial means for its accomplishment. In the work above described the principle is forgotten in the glow of real enthusiasm—natural interest—unsolicited by the teacher.

The Third and Fourth Grades were not separated in this work. The result was that nearly every group included pupils of both grades. This condition tended to break up the rigidity of grades and to create a more congenial spirit among the pupils. The teachers of various subjects felt that the effect of the group work was to decrease the pressure of discipline and to develop a more kindly spirit toward teachers as well as pupils.

Considerable difference was observed in the ability of the Third and Fourth Grade pupils to plan for a series of steps in any work. The Third Grade were not capable of looking as far ahead nor of holding their attention upon one thing so long as the Fourth Grade. Far more ideas were advanced by the Fourth Grade pupils, and the organization of the groups including a majority of Fourth Grade children, was more complete and effective. However, the test was hardly fair, as there were twenty-six Fourth Grade and only fourteen Third Grade pupils in the room.

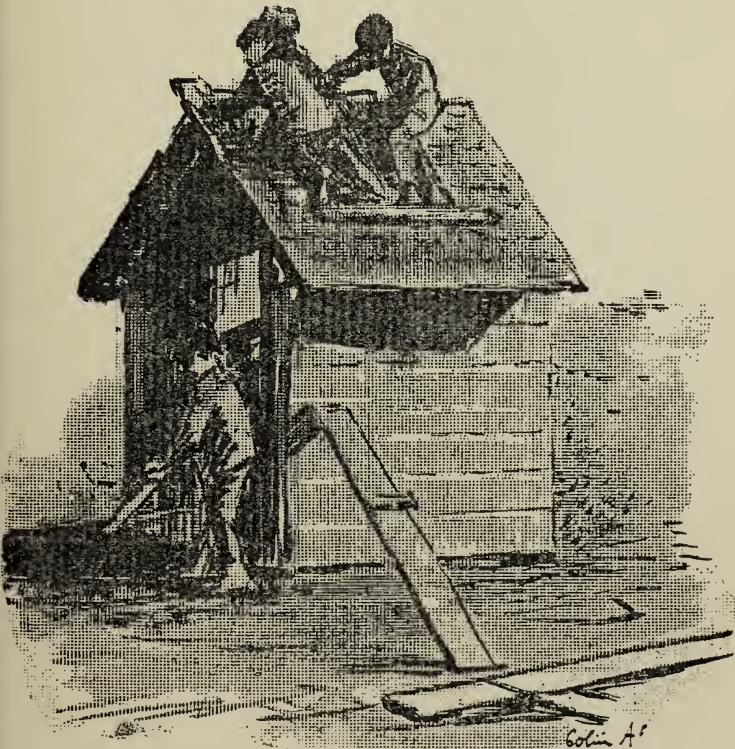
The pupils' method of disciplining themselves was worth noting. It arose from real needs, the children observing that they could not carry out their plans where there was disorder in the group. Early in the work when

a group could not have the teacher's assistance some member of the class would volunteer to "keep the group quiet" or some one would say, "Let Mary be the teacher and keep us quiet." But when they learned that the teacher was unwilling to appoint a deputy for her place they devised plans of self-government. True self-discipline is not the meaningless drudgery of "keeping things quiet" because the teacher wishes it or because "it is nice to have it so." Self-government arises from the felt need of the children to make conditions such as will be most conducive to the best possible work. Sometimes the officials of the group attempted to assume too much authority and were remonstrated with by the members. Sometimes a child became disorderly and refused to do his work so that the group were compelled to withdraw from him. Several times the entire group became noisy and disturbed others in the room. In such cases the teacher appealed to the president or other official, and if he were not able to bring about order the entire group was considered a hindrance to the room and was asked by the teacher to join those who had no plans and who were doing work arranged by the teacher.

The work planned by the pupils has a wonderfully stimulating effect upon the teacher as well as the pupil. It offers one of the best opportunities for her to know her pupils—their various tastes, their strength and weakness.

The teacher found it impossible to be of service to the various committees if she attempted to examine the plans during the hour at which they worked. When she pre-

sented this difficulty to the school they saw the necessity of giving her their plans on the preceding day in order that she might have one evening in which to examine them. From this time a few seats in the room were reserved for those who wished to write plans. While many did this at home there were usually a few writing plans at school each day.



HOUSE APPROACHING COMPLETION.

At first there was a tendency to be hasty and careless about the writing. The teacher declined spending her time on carelessly written papers, and the pupils found it important to exercise care in all writing, spelling and drawing if plans were to receive attention. As the work progressed many of the pupils took almost as much pride in the accuracy and neat appearance of the plans as in the completed work. A good, well-written plan had its effect in convincing the teacher of the value of the proposed work.

Measuring and figuring were often necessary, but only a small per cent of the number work usually given in these grades ever arose in the children's plans.

The question has been asked by some who have seen the work, "How much of the school time could profitably be spent in work planned by the children?" Perhaps only observation as the work develops could enable one to answer this question. In these grades the time given to this work, up to the present (Christmas), has been from one to three hours a week, with an average of about two hours each week.

This is a very small per cent of the school time. The brief course of study below shows something of the scope of the regular work outlined for the children.

LITERATURE.

Robinson Crusoe.

Hiawatha.

Stories from Hawthorne's Wonder Book and Tanglewood Tales.

Norse Myths.

Nibelung Tales.

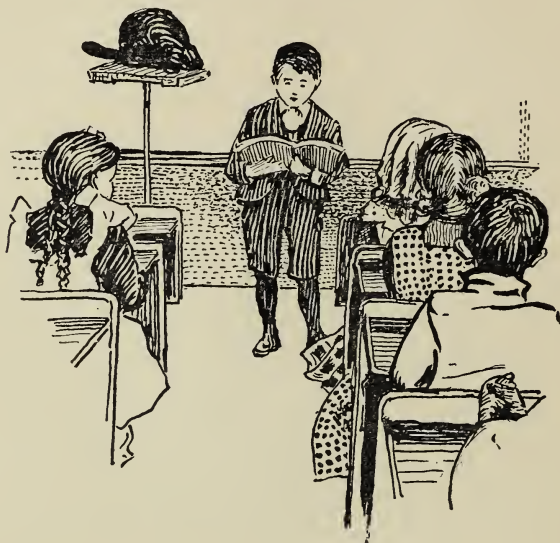
Appropriate stories are given for Thanksgiving, Christmas and the birthdays of Washington and Lincoln.

The developing method is used in presenting the literature. The pupils, with the teacher's help, then make an outline consisting of a series of interesting points, arranged according to the degree of interest. Later the pupils write these stories in their own words, having this outline to guide them in the arrangement of the story. The pupils are encouraged to make their original writing the final one, if they are capable of doing so. Their aim in writing is to preserve a collection of these stories, which they bind in permanent form.

As the teacher observes the work of the pupils and discovers their needs in writing, spelling and language, she sets apart a portion of the time for special work along these lines.

READING.

To reading is given more time than to any other one subject, as this is the avenue through which much of the child's knowledge is to be obtained. Emphasis is laid upon gaining the thought by silent reading, as well as by oral expression.



The following are some of the books used :

Baldwin's Third Year.

Cyr's Third Reader.

Fairy Tales and Fables by Thompson.

Robinson Crusoe for Boys and Girls, by Lida B.

McMurry and Mary Husted. This is read
after it has been used as Literature.

Baldwin's Fourth Year.

Hans Andersen's Stories.

Fifty Famous Stories Retold by Baldwin.

Baldwin's Old Greek Stories—used as litera-
ture earlier in the year.

Legends of Norseland, by Mara L. Pratt—used as literature in the winter and read in the spring.

Children are encouraged to bring stories from home which they have prepared to read to the class.

Each pupil is allowed to take one book from the library each week to read at his home.

NATURE STUDY.

Nature study work is divided between the general observation of outdoor life and the detailed study of objects brought to class. Frequent excursions are made for the purpose of studying flowers, plants, trees and birds in their habitat. Children should have a speaking acquaintance with many more plants and animals than can possibly be studied in a detailed way. In the fall the migration of birds, the preparation of all nature for winter is observed. Leaves, seeds, cocoons, etc., are gathered. In the spring a garden is planted on the campus and its growth watched. During these two seasons the children do much of their work out of doors.



In the winter season snow crystals, salt crystals and rocks are studied. The life histories of some animals are taken up, e. g., the study of the beaver. As the subject is developed, the pupils work out in the sand table the beaver's home, showing the trees in various stages of preparation for building a dam, and the house of the beaver. Small clay beavers are modeled from a mounted specimen and placed in these homes.

Aside from the sand table work and moulding, free hand cutting and drawing are done in this connection.

A book is written containing a series of chapters on the subjects studied. Later this book is used as reading material.

Physical experiments in magnetism, electricity, heat and light are made. These are carefully written up and illustrated with drawings, then bound in permanent form with other written work by the children.

GEOGRAPHY.

LOCAL FEATURES.

Study of soils, sand, irrigation, drainage, hills and valleys. Maps of school room, school grounds, and of Greeley. Clay modeling and sand table work in this connection.

LOCAL INDUSTRIES.

Visit to: a building in process of erection, the beet sugar factory, a blacksmith shop, etc. ("Tarr and Mc-Murry" is used as reference book for the teacher).

NUMBER WORK.

While much of the number work arises from other subjects taught, we plan to cover the following work: Sense training, sight, touch, hearing. Objects are used as the basis of all work. Ratios of time, value, distance.

OBJECTIVE WORK IN NUMBER.

Rapid drills in addition, subtraction, multiplication and division. Application of these in the form of concrete

problems correlated with other subjects. Long and square measure. Areas of rectangular fields, of square and rectangular gardens (correlated with garden work).

MUSIC.

(Outlined by Music Director.)

The sub-dominant chord and all new intervals possible with tones of the same. Melodic resolutions of tones. Motion of parts. Two part singing. Simple dissonances. Sing, write, point and indicate songs and exercises from memory. The half and two-quarter beat; the two-quarters and half beat. The three-quarters and quarter beat. The triplet. Given the key tone, to recognize and write any exercise or song involving the foregoing elements. Ear exercises daily.

Meaning of key and time signs. Chromatic seconds. To reproduce easy songs from teacher's singing. Three and four part rounds. Transition to first remove. Given C, to find any key. To reproduce the modulator as far as four sharps and four flats. Part pulse dissonances. Daily use of modulator and manual signs.

DRAWING.

(Outlined by the Drawing Teacher.)

Nature Study.—In fall and springtime, study of leaves, sprays and plants, birds, insects, animals and posed figure in winter term.

Landscape.—Simple elements of natural scenery; natural phenomena.

Object.—Common flat objects, natural and artificial; study grouping.

Color.—The six standard colors and six intermediate hues. Study of tints and shades. Color analysis.

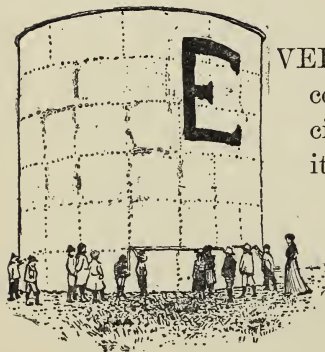
Elementary Design.—Balance and proportion of dark and light. Principle of subordination and repetition. Study of rhythm and terms.

Correlation.—Illustration of other branches, as Reading, Literature and Nature Study. Illustration of anniversaries and holidays.

Picture Study.—Study of good pictures or reproductions for the purpose of cultivating taste, ideal conceptions and developing in them an appreciation of correct ideals of graphic expression.

FIFTH AND SIXTH GRADE WORK.

BY ELIZABETH H. KENDAL.



VERY teacher wishes to develop self-control, self-reliance, energy and decision of action and to foster originality in her pupils. To do this she uses every indication which shows the trend of interest and purpose in a recitation to gain a closer, a more intimate knowledge of the child and to guide her in directing the work to their best development.

Beside the periods we devote to work in which the child takes the initiative and the teacher simply helps in the work offered by the pupils as they desire her assistance or accept her suggestions, we have done some work in the various branches studied in Fifth and Sixth Grades, based upon propositions from the pupils of which a few examples may not be uninteresting.

A class in the Fifth Grade, who were studying perimeters and areas, proposed that they should find the area of the stand-pipe, which is a part of the city water supply system. While considering the advisability of this plan,

the objection was raised that it would be impossible to find the altitude; but one pupil recalled the fact that the tank was marked off in sections, that were not very high, and suggested that one might be measured and the altitude computed. So armed with a hundred-foot tape line, a yard stick, and note books, they went next day, accompanied by their teacher, to the stand-pipe a quarter of a mile distant where the measurements were taken. When the calculations had been made, the question as to the number of cubic feet and the number of gallons it would contain, arose. This led in the following lessons to the study of the volume of cylinders, for which they found the relation of the diameter to the circumference necessary. This was given them by their teacher after they had by measurements found various results: as $3\frac{1}{8}$, $3\frac{1}{5}$, etc. The interest taken in these subsequent lessons, fully compensated for trouble taken and was suggestive to us, at least.

One of the most interesting recitations which we have had in history this year was a council to which the Fifth Grade invited us. In their study of the explorations of Father Marquette and Joliet, they had followed their wanderings down the Mississippi to the mouth of the Arkansas, which was the farthest point reached by the expedition, and finding that a council was held there between the white men and the Indians to consider the best course of procedure, the children decided to reproduce the scene as nearly as possible. They sought with equal zeal to find what they deemed suitable costumes and arguments to sup-

port their positions. The Indians urged the white men to stay with them to pray and preach or trade as they felt the leaders could be most easily influenced, and reported monsters in the river and hostile natives in the region to the south. Some of the white men urged that they con-



tinue their journey to the mouth of the river, others that they return to Fort Frontenac and report progress to the governor before it was too late. This argument finally decided the matter, and after being given guides by these friendly Indians, they departed on their homeward way.

Inspired by a desire to represent their parts well the children questioned their teachers and read all available material in order to get light upon the characters they were to represent and showed considerable ingenuity and ideas of appropriateness in the working out of their parts.

The children proposed when we began the study of the Plymouth Colony that they should build a house as similar as possible to those of the Pilgrims. Though it seemed a large undertaking for them, the teacher thought that it could be accomplished, if it were planned carefully. So planning together, they decided to build a log house, $5 \times 8 \times 5\frac{1}{2}$, which was to have a chimney and fireplace. After planning the details of the work, the class was divided into committees, to measure, saw, and chisel the logs and to



clear the ground for the house. As they had no stone nor brick, with which to build the chimney, they decided to

make the brick themselves. This gave employment to those who could not work on the logs. They also appointed two secretaries to keep records of the plans made and of the work accomplished each day.

The work was begun with enthusiasm and in fact did not lack in interest to the majority of the children until we stopped working. But either because of injudicious planning or because the work was really too difficult for them, it dragged from week to week until it became too cold for work and, though the children said that the Pilgrims did not stop for a snow storm, we thought it best to abandon the work at least until spring.

As the history work did not stop at the same time, it will of course be finished, not as a part of the history work, but as a manual training exercise.

Although it was something of a disappointment and as it stands thus unfinished is a monument to our imperfect judgment and planning, we derived many benefits from the work. The interest in all subjects pertaining to the life of the colony was stimulated to a great degree and they read all they could find upon the topics considered during the sessions of the class in the school room, for example such topics as: How they lighted their houses. How they told time, etc. In connection with this work, they made sun-dials, candles, and candlesticks, wrote paragraphs and told incidents in the lives of settlers, showing their character, laws, customs, relation to the Indians, etc.

The difficulties that they met with in their work made them appreciate more fully the privations and hardships of the faithful band at Plymouth and impressed indelibly upon their minds the image of the little log house and what it typified.

This plan having been partially unsuccessful, a plan was proposed which the children adopted with pleasure and which, after having been in operation for six weeks, promises to be the most successful of any work we have done this year. The class has been divided into five groups, each group chooses a colony the history of which it is to study and present to the others. After careful preparation the group reports to the entire class the facts which it thinks important or interesting and is criticised freely by the others, often having to look up points more fully and report again. Each child in the class keeps a note-book in which he records the principal events in the report given during the preceding lesson. The group then takes the material that it has gathered and, cutting out all detailed and unimportant points, prepares a history of the colony.

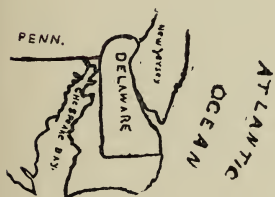
If this chart is approved by the entire class and the teacher, it is printed and is kept as permanent record of the work accomplished. (See chart, page 89.)

The work differs from the other examples given in having originated in the mind of a teacher but in having the details worked out almost entirely by the pupils. The pupils are supplied with books, Fiske, Montgomery, Pratt's American History Stories, Dutton's Colonies, etc., from

which they gather material as they desire, although they are grateful for suggestions or questions that aid them, for example: Superintendent Miller of Denver, while visiting during one of their study-recitations, gave them work for an entire period by asking why Delaware was curved on the northern boundary.

The interest in the work is quite remarkable; the reports, usually well prepared; the criticisms, sensible, kindly, and helpful; but the secret of its success lies in my judgment in the deeply-rooted love of humanity to realize its desires in action, for it is in the magic printing of the chart that the attraction, which calls forth their best efforts, resides.

THE DELAWARE COLONY.



Delaware was settled by the Swedes in the year 1638.

The company that was sent over from Sweden were plain, strong, and industrious people. The Swedes hadn't had possession of the land ten years when the Dutch of New York came in and took it from the Swedes and sent all of them back to Sweden who would not obey their laws. Then the English took it from the Dutch in 1665.

The English owned Virginia Massachusetts and Pennsylvania and they wanted New Jersey and Delaware so that if any of the countries across the ocean should want to fight with them that they would have a better chance to fight as they did not want their country divided.

William Penn thought he would like to have the land so he bought it from the Duke of York, it was considered a part of Pennsylvania so he called it the Territory.

There were farms that extended into Pennsylvania which belonged to Delaware. When

During the winter term we have been making a series of simple experiments in physics. Now, one of the great faults in past teaching and especially in science, has been that it was the teacher who asked nearly all the questions and though the child might follow her guidance with intelligent interest, he did not feel encouraged and inspired to make personal investigations in the realm of nature. For this reason, the teacher in charge of this class has taken advantage of many of the questions asked in class by referring them in experimental form to nature. Many of these experiments may seem trivial from a mature point of view, but, because they encourage the children to try things for themselves and to have faith in their ability to do something of themselves that is worth while and also because it may be of importance in the development of the child, though of small account to us, we consider these little efforts of the greatest importance.

A few such problems that arose are:

Would not either end of this magnet attract either end of another magnet?

Will a magnet gather iron filings from out of a pan of water?

If the magnetism passes through things it will not attract, will it not attract a brass cup if the cup is filled with iron filings?

If we were to mix the iron filings with sand, would the magnet pick them up?

How large is the magnetic field of this magnet?

Does a glass have to be a round tube to be electrified?

When the pith ball is repelled by the comb after it has been attracted, does the electricity in the pith ball attract the brass rod?

One thing that the comb will not attract is glass. (Proved incorrect.)

From these glimpses of the work done in the Fifth and Sixth Grades, an idea may be gained of the spirit of the work done, though it is too fragmentary and disconnected to give anything beyond that.

A very brief and rough outline of work covered in these grades is appended.

HISTORY.

In history the lives of discoverers and explorers, as DeSoto, LaSalle, Drake, Hudson, Fremont, etc.; the Colonies, King Phillip's war, French and Indian war, events leading to the Revolutionary war.

SCIENCE.

Fall flowers and plant life. Animals of locality, *e. g.*, coyote, gopher, and related species, especial study of canines, felines, and rodents; climatic conditions; weather chart; forms of water; forms of matter; simple experiments in light, magnetism, electricity, liquid and air pressure; recognition of common kinds of rocks found on excursions; birds that spend the winter in Greeley, birds re-

turning in the spring; spring flowers and germination of seeds.

GEOGRAPHY.

The world as a whole; forms of land and water; types and comparison of examples—river basin and work of erosion from study of an arroyo nearby, comparing it with the Mississippi, the Nile, etc.; trade relations and industries, dependence upon climate and topography, *e. g.*, cattle industry, life of ranchman and cowboy, round-up, shipment, trade centers, packing-houses, products, exports, and countries to which they are sent; influence of the barrier of the Rocky mountains upon this industry, geography of North America, and dependencies of the United States. Tarr and McMurry, Redway and Hinman, and Frye are used as text-books. Excursions and imaginary journeys are taken.

ARITHMETIC.

We finish the Elementary and begin the Advanced book of Speer's Arithmetic. In Sixth grade we cover the subject of fractions including work on accounts and bills.

LITERATURE.

When necessary, owing to lack of previous training, we give Greek and Norse myths and hero stories, also stories of famous men and women of all nations. After having such a foundation, we take up stories from Norse his-

tory. The Vikings; the coming of the Angles and Saxons; an adaptation of Beowulf; the beginnings of nations, life and movements of masses instead of individuals, as illustrated in the Aryans, Greeks, Romans, Teutons; the King Arthur legends. Flight of the Tartar Tribe—adapted—etc.

CORRELATED WORK.

Language work, spelling and writing do not have special periods set aside for their study, but are correlated with the other work and make a part of every subject.

Reading is correlated wherever possible with other subjects, especially science and literature. In the reading classes equal attention is given to expression and sight reading.

On the expression side of our work, though we have special lessons where the attention is given to the principles of drawing, use of water colors, etc., pencil, chalk, charcoal, clay, and wax are used for illustrative and constructive work in all the branches. For example in reading, geography, literature and history, we illustrate word pictures given by the pupils, teacher, or text.

In science we draw or model animals studied; design borders for weather charts and make drawings of apparatus used in experiments, we design badges and banners for field day exercises of physical culture class.

MANUAL TRAINING.

Sloyd and sewing are given in these grades, the children choosing the articles to be made.

In Sloyd the boys have made sleds, pin-trays, doll-beds, or cradles for little sisters' dolls, a little cabinet, a book-case, a water-wheel, bows and arrows, checker-boards (inlaid wood), picture frames decorated with carving or by pyrography, etc.

In sewing the girls have made needle-cases, handkerchiefs, party-bags, doll clothes and, in the Sixth Grade, skirts for themselves.

MUSIC.

Two short music lessons are given each day, in which many melodious exercises, rounds, and songs are given from best composers, with constant effort to train musical taste and appreciation. The technical work is given when it is necessary for the interpretation of an exercise or song which they are to give, and only as it is a natural outgrowth of the desire to understand a selection and the application is direct. Some of the points brought out by these means are:

Quarter-beat rests, syncopations, chromatic tones by leaps, sections, sharp 4 and flat 7 as chromatics, ear exercises and modulator daily, voice leadings, indicating transition, chromatic resolutions, reproduction of modulator from memory, the minor mode, elements of melody, phrases, sections, periods, melodic cadence, analytical reci-

tations with especial regard to constants. Reproduction of the extended modulator. Major, minor, and diminished chords.

Beautiful and simple songs from the best composers are sung for the children by the teacher or by invited artists at intervals as an inspiration and ideal.

SUBJECTS TAUGHT IN THE FIFTH AND SIXTH GRADES.

Reading, Writing, Arithmetic, Spelling, Grammar, Composition, Language, Literature, History, Geography, Sloyd, Sewing, Cooking, Music, Drawing, Modeling, Industrial and Constructive Work, Nature Study.

WORK IN HISTORY—EIGHTH GRADE.

BY ELIZA GEORGE KLEINSORGE.

THE study of the administrations is difficult for beginners in history, when the presidents, following in rapid succession, are made the basis of mental procedure. The sojourn of our executive in the national seat of honor is so short and, except in a few cases, his influence is so limited that he does not become a fitting ideal around which to group ideas for the pupils who at this age are forming their own ideals of life. At this period it seems best to teach our national history with the prevailing social development and political ideas as the basis of procedure, emphasizing our great men in any line of work and bringing them as ideals before the students. With this in mind the following plan was tried with an Eighth Grade class:

It was thought best, in so far as possible, to have the pupils really experience the history studied; not to take time to dramatize each part, not to work it out on the laboratory plan as though they were post-graduates in Berlin; and, not that they were to be grown up men and women making of themselves a backward moving panorama over the historical world, but that they were to be schoolboys and schoolgirls living and thinking during the time that

this particular bit of history was being made, and, in their own way, live and make that bit of history.

The preparation for this was a saturation of ideas concerning the social conditions of this time. The class was divided into three divisions—the Southern, the Middle, and the New England people. In every way possible, the class was flooded with facts; every thing to be found concerning the manufactures, commerce, products, costumes, customs, home and public life, education and religion, was made a part of their lives. Their recitations were conversations among themselves, each group trying to give the others a perfect idea of the social conditions of their section of the country. A Southerner told how he spent his Christmas, a Pennsylvanian grew eloquent upon the subject of an exciting trip from Philadelphia to New York, accomplished in two short days by the flying stage, the New Englander tamed their hilarity with a long talk on his previous day's experience, it being the holy Sabbath.

The administrations were begun by forming the three departments of government:

One member of the class was elected President Washington and was "so nominated in the social bond" both in and out of school. He appointed a cabinet to assist him in his arduous duties.

A supreme judge and four associate judges were appointed.

The whole school was formed into a house of representatives and a senate. The school-room was divided in

two by a home-made curtain so that each house had a place of meeting. The pupils now assumed the age, name and responsibilities of the member of congress whom they represented.

Washington committed and delivered to congress the noted speech made famous by the real George a century ago. The questions of the day came up before congress in the form of bills and were warmly discussed by the members. The young senator stood firmly for the rights of the South, while the representative from Massachusetts used all his Yankee wit to insure proper legislation for New England. The first questions were suggested by the teachers, but very soon the pupils began to see the necessity of, and to bring up questions of their own, often things that the teachers had not thought of at all; for instance, in Washington's administration, they asked one day what was the condition of the navy and began to take measures to strengthen the same. The bills at first were prepared out of school hours by a committee appointed by each house; the teachers had to meet with them for long sitting to show them how to frame their bills, what the questions meant, what arguments to use, etc. After they were able to stand alone, each member of the class framed a bill and the whole class voted upon the best one which would be presented before congress the next day. Now, any committee appointed can frame a very acceptable bill; the pupils strive to be put upon such committees; new pupils are turned over to them for instruction in this branch of legislation. The congress soon found that there was a great deal of

writing to be done in copying all those bills, so they shrewdly elected a boy, who is doing printing in another phase of school work, state printer. He prints the bills on the school press and each member of congress has a copy before him at the time of discussion. These bills are kept and bound in a book, in chronological order. The printer has a decided advantage in being a member of congress and often amends a bill by striking out useless words because it is much easier to print. The following is a facsimile of a bill:

MATTIE MILLER.

REPRESENTATIVE from N. C.

H. B. NO. 6.

A BILL FOR

An act to provide for the admission of Maine as a free state and Missouri as a slaves state with the provision that slavery be prohibited west of the Mississippi and north of the parallel 30° and 30'

A secretary is appointed who keeps a record of all the doings of the class. Each pupil also keeps a record, of his own accord, of what he considers important. Many of these books are surprisingly fine, almost little histories in themselves.

When the Alien and Sedition laws came up, the Southerners concluded that they were not "fair," as they expressed it, and they began looking up the constitution to verify their views, finally concluding that it was a question for the supreme court to settle and a test case was brought up before that dignified body. This was the first

time that the judicial part of our government became a vital part of their history.

By the time the Dred Scott question came up, they were quite well acquainted with legal proceedings. The following is a copy of one of the lawyer's briefs read before the court in that noted case:



Honorable Judges of the Supreme Court—In this case, the real question is whether this nation can be half slave holders and half anti-slave holders. A well-known saying of the Bible is, "A home divided against itself can not stand." The story of the case is a well-known one to you; the owner of this slave took him to a free State, then to a territory where slavery was prohibited—it is claimed that this man is free under the law.

According to the constitution, this man can not be a citizen of any State since he has under the constitution

merely an existence as a thing, an importation and no legal claim to the term citizen.

An accepted definition for citizen is a person, native or naturalized—a free man as distinguished from a slave. This man claims to be a citizen and to be entitled to the law; according to our definition he is not a citizen, according to the constitution he is a thing, not a person, so taking these two facts together, we may see that he is not entitled to the law.

The owner of Dred Scott was unquestionably his possessor until this action was brought.

My opponent said that the constitution is not made for the Territories, but for the States. Amendment 5 says that no person shall be deprived of his property without due process of law. Dred Scott was Emmerson's property. Congress has tried to deprive men of their property through the Missouri compromise.

When the constitution was made, it was made for all the United States, not only for the thirteen original States, but for all the States and Territories.

Now, let us take an example, say a man owns a horse, he goes to a State where it is forbidden to have such a kind of horse, he has no intention of becoming a citizen of that State, therefore since the law declares that no citizen of this State shall hold such a horse, he can not be held liable for owning such a horse, as he is not a citizen.

The same thing applies in this case.

Therefore, Honorable Judges of the Supreme Court, said Scott is not free, but still is in the possession of Mr.

Emmerson, who did not declare, nor did he have any intention of becoming a citizen of Illinois or Wisconsin.

ISABEL CHURCHILL.

While working on an appropriation for the Erie canal, one day, a Senator asked how much money was in the treasury; the Secretary of Treasury was called in to give a general report of the financial condition. The first speaker on the subject of the appropriation declared that it would be a sin and shame to spend \$15,000,000 of government money on a scheme that would benefit New York State alone. The next speaker dwelt loud and long on the benefit to the whole country to be derived from this one water-way. He said that Western New York, Northern Ohio and "The Garden of Canada" were the food-producing regions, and by furnishing this cheap means of transportation to the coast, the price of breadstuffs would be lowered for all, particularly for the South, which was the chief buyer; also that the canal would open up new markets in the West for the products of all other States. A pupil stepped to the board, drew a map of the region and made a speech suggesting that the grain of this region be shipped via Great Lakes, St. Lawrence, Lake Champlain, Hudson to New York, and that goods could be shipped into this same region via Mississippi and Ohio Rivers. The next speaker was scathing in his remarks, asking how the boats could go over the Niagara Falls and how reach the Hudson from Lake Champlain; he closed by assuring the Senate that the opponent was not well informed, for only

last week the House had defeated a bill to clear the Ohio River of stumps and stones, making it navigable for a part of the year.

Either House can run itself in the absence of a teacher. One case of disorder has occurred at such a time—a pupil who wanted to talk too much without recognition from the chair. From the other side of the curtain I heard, "If the Senator from Maine continues to disturb the House, will the Sergeant please conduct him to the hall," and the wagging tongue was silenced.

A boy was arguing a point after school with his chum and was getting the worst of the argument; he gained the upperhand by saying, "Now, Washington, you can't argue that policy any longer, you died last week; we sent resolutions to your wife."

A pupil who visited another school brought back this report: "I don't see how they understand their history at all, they study a book just as it comes, whether it is the way the history happened or not."

This is the method, somewhat briefly stated with a few examples from the children's experience, which gives a glimpse of the life they are living.

RESULTS.

The interest is intense and constant. The pupils are not only interested in the history of the past, but also in the present history that comes within the boundary of their experience; when the President's message came out this winter it was eagerly seized upon, was read quite intelli-

gently, and compared with Washington's, noting the changed conditions and also that some of the problems of that time are still of importance. Roosevelt's ideas broadened their local view of things and now all the actions of Congress pertaining to irrigation, sugar tax, etc., are looked after and reported to the class with greatest care.

As soon as the bill for the appropriation for their Erie canal came up, the whole class took a sudden interest in the Panama question, and nothing on that subject escapes them.

The students seem to comprehend fully what they are doing, they refuse to take any action until they know the why and the wherefore. Last week a phase of banking law came up that they could not grasp, so they adjourned Congress and spent a recitation on the subject; they reviewed banking from Hamilton's first idea of it down to the date which they were studying, and worked away, seeking information from all possible sources until they felt that they could again proceed intelligently to make laws concerning banks.

By this method the individual is strongly developed in self-reliance and independence. The pupil, in taking the role of Senator, forgets himself, becomes thoroughly imbued with the idea he is presenting, loses all self-consciousness and can think and talk on his feet; timid pupils who could not make a complete sentence can talk entertainingly for five or ten minutes at a time.

The ability of each pupil is utilized—one becomes an authority on tariff, another on finance, etc., and each feels his worth when he has contributed his mite to the good of all.

They are seeing history in its unity and full vitality; they see that events do not happen by chance, neither is the President a cause of events to any great degree; they see that Presidents come and Presidents go, but principles go on forever. They realize that the times of peace are the vital epochs of history, and that wars are only hindering or retarding instances in the great onward movement.

They have not studied the constitution in class at all, yet they know it in a very vital way; they are constantly searching through it for a clause to support some point taken in the proceedings, and they fight like supreme judges for its proper interpretation.

The social relations which this method develops are fine. Each must learn to respect the opinion of others, must have tolerance and charity. When a boy becomes thoroughly imbued with the idea that there should be a tax on tobacco, it is often quite a shock to him to see his chum, who happens to be a Southerner through that administration, protest against this view; this brings him face to face with the fact that he is only one of a community, that he is only a part of a whole. Taught by this method, he could not graduate, having the idea that he knew it all and feeling a profound pity for those who had preceded him and intolerance for the classes that are to follow.

The imagination of childhood is still used in playing the role of politics and the vivid picture thus made is indelibly stamped upon the memory. All through the work strong glimmers of the reasoning ability manifest themselves. The creative is also there in embryo. Their character sketch of Lincoln is just as real to them, just as wonderful and enjoyable as is Miss Tarbell's creation of Lincoln. Of course it is created in their own image, an Eighth Grade image, but it is there, strong, real and vivid.

The plan is not ideal, is not the long sought royal road to history study, but it is a step in that direction for the student teachers. For the pupils, it is very practical, teaching them how to meet and overcome the problems of every day life.

SCIENCE.

The Seventh Grade devoted the early part of the fall to the study of the butterfly, the cocoon, the chrysalis, etc., making frequent excursions to the alfalfa fields for the butterflies, to the cabbage patch for the caterpillars, and to the trees and weeds for cocoons. In the Sloyd room, the boys made the little board cases for drying the butterflies which are to be mounted in glass for our school museum. Their study of butterflies and moths was much broadened by the kindness of one of the ladies of Greeley, who gave the students the benefit and inspiration of her large collection gathered from all over the world.

Their search among the trees of the campus for cocoons aroused an interest in the trees themselves. Draw-

ings were made of the trees in their fall and winter dress; the leaves and bark were studied. They made long trips to trees in the vicinity and one sturdy cotton wood along an irrigating ditch was sacrificed for a cross section. Of the varieties of trees on our campus the pupils know almost all.

When the days became too cold for out-door work, the teachers constructed a windlass and began experiments in the first principles of physics. The students suggested many improvements for assisting, or making easier the pulling of each other by means of the windlass and rope; one said, "Make the handle longer and it will go better." Another, "Make the axle smaller and I can pull more boys." "If we had a handle on each end of the axle, one up and one down, we could pull twice as many boys." These suppositions were all proven by changing the windlass as directed. They soon suggested that the lever and pulleys were also used to assist in the moving of loads. All their suppositions were proven, by their own experiments, to be either true or false. While they were studying four movable pulleys, I asked the class one day which they would use—a windlass or pulleys—to move 800 pounds up a cliff 100 feet high, with 100 pounds force. They were divided in opinion. Our lazy boy said that he would use pulleys and would fasten 100 pounds on the end of the rope to make it pull up the remainder of the load. This was not fully accepted by the class when the time for closing came. In the next recitation, one of the boys was ready to down the easy-going lad by proving that he would have to drop

his weighted rope 400 feet in order to pull the load up 100 feet.

The arithmetic lessons were correlated with the work, teaching proportion at this time. All sorts of examples were used, based on such principles as—

Weight is to power as power-arm is to radius of axle.

Force is to load as distance traversed by load is to distance traversed by power.

INDUSTRIAL WORK.

In industrial work, perhaps a list of some of the articles of the year's work would give an idea of what we are trying to do with our hands and brains working together.

In the Sloyd work, the Eighth Grade are making a plain, solid mahogany table in the William Morris style, but designed by themselves. The Seventh Grade boys have designed and are making a Dutch piano stool of mahogany.

Both pieces will have covers, designed and woven by the girls of the room. They will also weave a rug of rag carpet for the floor beneath. On the table will stand several pieces of pottery molded, decorated, glazed and fired by the students. Also a book-rack, paper knives and a wooden tray carved by the boys.

In the Eighth Grade reading class they have been studying "The Nuerenburg Stove." This they are now dramatizing. The boys who are in the printing group will print the book for the class. Another boy will make the wood cuts for it. In the drawing lesson the whole class are

making designs for the cover of the book which will be bound and completed by them.

SUBJECTS TAUGHT IN THE SEVENTH AND EIGHTH GRADES.

Reading, Writing, Arithmetic, Grammar, Spelling, Language, Literature, History, Geography, German, Sloyd, Sewing, Cooking, Printing, Weaving, Pottery, Moulding and other industrial and constructive work, Music, Drawing, Modeling, Nature Study.

HIGH SCHOOL.

*BY ROYAL W. BULLOCK.

FUNCTION OF THE HIGH SCHOOL.

THE High School has a function above and beyond that of fitting for college or higher institutions of learning. Its greater function is to vitalize, realize, and utilize the knowledge acquired in earlier years and to convert it more fully into power. The High School is now "the people's university." It must prepare for life rather than for college, and preparation for life implies, not only knowledge the implement of power, but *skill* in applying knowledge to the accomplishment of worthy ends.

AIM OF THE HIGH SCHOOL.

It is the aim of the High School to afford a training that shall be at once practical, disciplinary and cultural. It is believed that these three aims are not antagonistic, but that any subject can and should be so taught that practical knowledge will be gained, the mental processes be quickened and strengthened, and a culture result that comes from deeper and wider interests and from "such an ac-

*The articles on English, Mathematics, Reading, Physical Culture, Music and Drawing were written by the special Supervisors.

quaintance with life as is needed for social efficiency or morality."

TEACHERS.

The teaching of the High School is divided between the Normal School Faculty and the Seniors in training. At present twenty-one Seniors and eight Faculty members are teaching High School classes. This arrangement permits the Seniors to profit both by observation and experience.

In addition to the supervision of the Superintendent of the Training School and the Principal of the High School, the Senior is given the direct assistance of the head of the department in which he works.

The weekly meeting of High School teachers and supervisors is another source of inspiration and help. Such topics as "The Psychology of Adolescence," "Student Ideals," "The Social Life," "The Didactics," of special subjects, etc., form the basis of discussion. Recently a series of conferences on "The Teaching of Latin," "The Teaching of Biology," and ten or twelve other subjects, has resulted in great good.

EQUIPMENT.

High School students have full use of the various laboratories of the Normal School, and of the studios and library, on the same conditions as the Normal students. They are given special instruction in the use of the library

and are enabled to use its fifteen thousand volumes intelligently and effectively.

GENERAL NOTES.

The Shakespearean Literary Society is organized, officered, and controlled by the students, and offers opportunity for practice in literary, dramatic, forensic, and musical work. It meets weekly at 2:15 Friday afternoons.

"The Normal High School Cadets" is a military company, organized, officered, uniformed and managed by the High School boys.

The school is a member of the "Weld County High School League," and meets the other schools of the County once a year for athletic and literary contests.

From time to time the students are addressed by Superintendents and Principals of other schools and by members of the Normal School Faculty, on subjects of educational and ethical importance.

Tuition is free. A library fee of \$2.00 per semester is charged for the use of books.

ENGLISH.

The teaching of English in three-fold in its purpose: it endeavors, first, to cultivate correct speech; secondly, it aims to develop the power of expression; and thirdly, it strives to bring to the pupil's knowledge, and thereby to his appreciation, the best literary products. To achieve

these three purposes is the measure of the work we set for ourselves in our High School Department.

Grammar is presented both formally and practically: practically, in that care is given to the language employed by pupils in the class room and in written work; formally, in the study of a text-book because they are now beginning to ask the *why* of constructions. The endeavor is constantly made to secure criticism of incorrect speech from the young people themselves; in this manner the better trained half of the class help the less fortunate, and the indifferent student is spurred by the exact. Attention is focussed upon correct grammatical usage in all composition.

Composition is given prominence because it is the means of expression. Since geniuses rarely obtrude themselves among us we do not attempt to make literary writers; on the other hand, we are content if we can bring the youth to say clearly and forcibly what is in his mind. Daily conversation, which is simply oral composition, is the means of securing to any individual so large a means of pleasure and profit that the pupil should be taught to grasp its opportunities; the orderly and forceful arrangement of his ideas in writing is so frequent a demand upon every intelligent citizen that the pupil should be helped to meet this obligation. To these ends the arrangement of matter in recitation is cultivated, and a weekly paragraph upon some subject of interest is required. This demand for the paragraph, at the beginning of the second semester of the third

year is increased to two each week. The aim of the composition of the first two years is to secure clear and correct expression; the large matters of literary form are developed during the third year.

While grammar and composition afford the technical training of English study, its stimulating and broadening phase is the thoughtful reading of worthy books. *The Iliad, Ivanhoe, Macbeth, Julius Caesar, The Merchant of Venice*—each has its peculiar function in enlarging the youth's view, in widening his experience, and in deepening his interest in men. We endeavor not only to interest and stimulate, but also to form a deep love for great literature so that for all his future the student will have within him this perennial source of joy and growth. It is this pregnant third of English instruction that furnishes the teacher's touchstone, demanding, as it does, all the fineness, insight, and depth of which her nature is capable.

Grammar, Composition, Literature—all these subjects with their varied exactions and opportunities, are comprised within that simple-sounding, lightly spoken term, "High School English."

READING.

Good oral reading necessitates a comprehension of the thought of an author, and the ability to express that thought effectively by means of the vocal organs.

Every definite thought relation has a definite vocal form for its expression, *e. g.*, phrasing is the voice form

that shows the relation of the modifiers to the principal clause. As the study of literature is a study of the construction of thought forms and an analysis of thought content, the vocal interpretation of a piece of literature by a pupil, measures his appreciation of the thought and enables the teacher to discover, and correct his misinterpretation. Moreover the *spirit* of literature is revealed by the voice in a more subtle and powerful manner than by any other mode of expression.

A reading class should do three things for its individual member: First, arouse the intellect to image clearly; second, stimulate the emotions to *feel* the significance of the selection; and third, exercise the will by furnishing an occasion for moving or convincing others. Besides this regular reading class work, our High School affords individual training on chosen selections for Literary Society or special occasions, and careful attention is given to interpretation of the Drama. The response of body and voice to these more intense states, secures naturalness, and freedom of expression.

PHYSICAL CULTURE.

The work done in Physical Culture is both formative and reformative. It aims to attain and maintain for individual students, strong, healthful bodies, well under control of the mind.

Pupils are given individual attention and special exercises to overcome their particular physical defects. Nar-

row chests and round shoulders are the most common difficulties. Strong breathing exercises, with practice for strengthening the muscles of the thorax, train the body to erectness and increase the lung capacity. Other exercises affect the bearing and carriage, enabling the different parts of the body to act in harmony. Still other groups of exercises aim at development of bodily expression.

Besides this formal class work, interest in all out-of-door sports is encouraged, and habits of recreation are formed, for we believe these habits once formed will continue through life affording pleasure and profit.

A girl's Field Day is held in May, at which, after long practice, the girls contest in such games as basket ball, tennis, hoop rolling, tether tennis, archery, quoits, races, etc.

MODERN LANGUAGE.

The conversational method is used to introduce the student to the modern languages, not for the sake of the conversation itself, but because this seems the quickest, easiest, and most interesting way for him to master the vocabulary and the Grammar of the language. Intelligent and fluent reading of the language is the real aim of the work. As soon as possible, the student is allowed to read the literary masterpieces of the language, and to study them as such. Oral and written composition is constantly used in the earlier stages of the study, but in an informal manner. Frequent comparison with the Grammar and

Literature of his own language broadens his knowledge of both languages.

LATIN.

It is believed that even "First Year Latin," properly taught, has a distinct and immediate value in its effect upon the pupil's English, besides the more distant value of preparing him to read Latin. Every new word is a study in etymology; every construction, a study in English Grammar; and every translation, an exercise in English Composition. In his later reading of Classic Literature the student is expected, not only to perform the mental gymnastics necessary to secure a translation of the text; but to become familiar with the life, the thought, and the feeling of the people who produced this Literature. He seeks the culture value of the subject, in the broadest sense of the term.

SCIENCE.

A brief sketch of the work being done in the Ninth Grade Biology class this year will illustrate the general method followed in Science work.

At the beginning of the year, the class after free discussion, decided upon the following as their general aim for the year: "To become more familiar with the animal life in and around Greeley." Their three main sources of information in the order of their value, they concluded, must be: Observation of animals themselves either wild or

in captivity; conversation with observers, including of course, their teacher; and the reading of books.

They next decided that they could accomplish more by dividing up the work in some way and finally formed themselves into four groups or committees, one for the study of insects, one for birds, one for water animals, and one for land animals. Each student joined the committee that seemed to offer the best opportunity for interesting and profitable work for him. Each committee then elected a chairman and arranged for sub-committees or individuals to observe, study, and report on, some particular animal.

As arranged by the students after some discussion and several trials, the further course of procedure is now as follows: The individual student contrives his own means for studying his animal, verifies his observations by consulting the best authorities at his command, and prepares a written report which is handed to the teacher several days before it is to be presented to the class. The teacher edits the report and advises with the student as to the best way of presenting it to the class. When the student reports to the class he is, for the time being, the teacher in full charge and is responsible not only for teaching his subject, but for attending to it that the other students know and understand what he has given. To this end he illustrates his "talk" by numerous drawings, mounted specimens, skeletons, charts, outlines, and sometimes live animals. He then hears the questions of the class, answering them as far as possible and noting those he can not answer, for further study. Lastly he questions them to determine

whether or not they are clear on the principal points of the subject. This constitutes the "recitation" of a student and he usually recites for a period of from fifteen to forty minutes.

Among the animals already studied by actual observation and reported on in this way, are, the pocket gopher, jack rabbit, cotton tail, prairie dog, muskrat, salamander, etc., and several birds, as the horned lark, black bird, etc. Many other animals reported on had been observed previously by many members of the class, although studied at the time from museum specimens. Among these are the coyote, eagle, snowy owl, and others.

Permanent wall charts for various purposes are made by the class from time to time, using rubber type on heavy Manilla paper. Another feature of the work is the "observation book" in which any student may at any time record his observations of animal life, signing and dating it properly so that he may be called upon by others to explain and amplify his written statement. This also serves to date events, as the appearance of certain birds, their time of nesting, etc.

The general results of the class work thus far have been more than satisfactory, and it seems that aside from the scientific knowledge and habit of observation which the student would naturally secure from this subject, he gains by this method a valuable training in setting his own tasks, devising his own means, collecting his own resources, and accomplishing the aim he himself has set up.

The study of Botany and Physiography is pursued on the same general plan. A close study of local phenomena furnishes data from which the student may reason in the solution of problems relating to distant localities. Frequent excursions form the basis of many subsequent recitations.

The students in Physics apply their knowledge to the needs of the school by adjusting electric bells, arranging



telephone and light wires, managing the stereopticon, etc. They endeavor to keep up to date by reading the current scientific magazines. A complete wireless telegraphy outfit is managed by the students with satisfactory results for short distances.

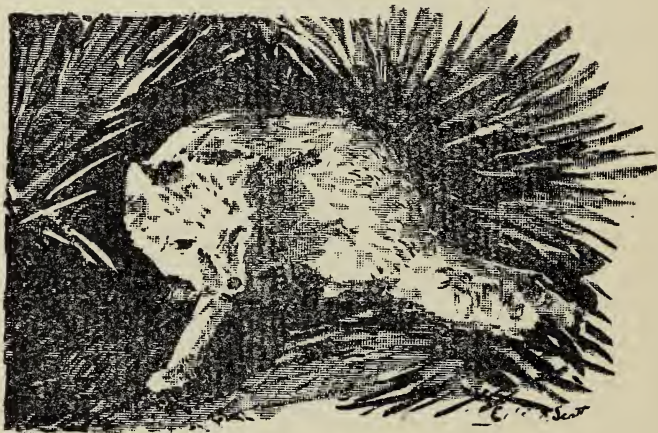
MANUAL TRAINING.

In the Manual Training department the High School does not aim to do the work of a Trade School, but as the name indicates, to train the hand to obey the mind readily and effectively, and furthermore to train the mind to conceive clearly, plan purposefully, and execute by persistent application. To this end the student is encouraged to prepare original designs of articles suited to his own needs, and is held responsible for the feasibility of the design and the genuine merit of the completed work. It thus happens that most of the work done by the students is upon articles which they desire for their own immediate use. Among the pieces thus made are bookcases, bookshelves, collar boxes, tool boxes, chairs, ornamental tables, checkerboards, crokinole boards, photograph frames, and numerous articles of bent iron work. Inlaying, veneering, and pyrography are freely used in decorating the wood work. The making of apparatus for experiments, mountings for maps and charts, frames and cases for specimens, bulletin boards, etc., correlates the work of this department with the other work of the school.

In the Domestic Economy Department the same breadth of purpose obtains. In their athletic work the girls wear gymnasium suits made by the sewing class, and invited guests frequently enjoy a course dinner planned, bought, prepared, and served by one of the cooking classes.

TAXIDERMY.

Taxidermy is a subject deserving more general recognition than it now receives in High Schools. The work is an interesting form of manual training, developing deftness, skill, and dexterity in the highest degree; an adjunct of science, demanding accurate knowledge of animal forms and habits; and a branch of art, comparable to painting or sculpture.



The novice has a vague impression that a fox skin sewed up and poured full of sawdust, will take on the form and semblance of the original wearer of the skin. This is far from true as the early attempts of many students will prove. To properly remove a skin, make a frame of suitable shape and size, form a body upon this frame, round

out the skin to natural proportions, select and fix suitable eyes, and give to the finished specimen a lifelike poise and pose, requires the deftness of a skilled workman, the knowledge of a naturalist, and the constructive imagination of an artist.

Abundant practical use is found for the finished product, by supplying cabinets or decorating the home with Nature's beautiful forms. The present High School class has added materially to our museum, shipped specimens to the Chicago schools in exchange for articles from their locality, and is now preparing an exhibit of work for the St. Louis Fair.

MATHEMATICS.

The High School work in Mathematics consists of the usual elementary work in Algebra and Geometry. The predominant aim in both subjects is to lead the pupil to observe, think, judge and act, rapidly and accurately. The pupil is encouraged and urged to take the initiative in his work and to discover original proofs for truths he knows, and, if possible, to discover new truths. To this end the work is presented to the pupil in such a manner that it is rational, sensible, and real to him. All mere memorizing and repeating of phrases, meaningless to the pupil, is avoided. A strong effort is made to cultivate, along with accuracy of logic, a clear, concise, and forcible means of expression, and a careful and accurate use of terms, thus

closely correlating the work in Mathematics with the work in English.

HISTORY.

“In society as it exists today, the dominant note running through all of our struggles and problems, is economic.”

The study of man in society is deservedly receiving more and more attention. The High School course in History should not only be a means of culture but should fit the student to reason from cause to effect and enable him to master present day sociological problems, whether studied formally in school or encountered practically in the business of life.

To accomplish this aim, the student in the Ninth Grade follows the evolution of the race and the development of civilization as a whole, by a liberal course in General History.

In the Tenth Grade, English History is studied with special reference to the growth of institutions, its relation to American History, and as a type of National development.

The Eleventh Grade work is an intensive study of American institutional growth and a review of Civics.

In all this history work the student is expected not only to learn the facts of History but to be able to organize and interpret those facts, in the light of knowledge acquired. The method in detail, is largely that of Mace and of Hinsdale. The lessons are assigned by topics, which are

worked out in the library, and the stereopticon is used freely in illustrating the subject.

MUSIC.

Pupils who have had no previous training will have daily instruction during the first year in the Elements of Music with special attention to the following items: Key-relationship, tone quality, rythm, simple forms, pronunciation, breath control, voice training, ear training, expression, and notation.

Those who are prepared for it will be assigned to classes doing such advanced work as they may properly undertake. It is the intention to grade the work according to the needs of the students, offering advantage in Music as advanced as their preparation may warrant.

DRAWING IN HIGH SCHOOL.

It is not the aim to make artists in this work, but to develop artistic feeling and encourage original thought. Art knowledge is of value to the individual and the country at large. To the individual it means culture and to the nation it saves impoverishment.

The drawing in High School consists of the study of design, color, composition and perspective. The study of plant growth and adaptation to design is studied in Fall and Spring terms. Charcoal studies from still life in light and shade and consideration of arrangement of drawing

upon the paper. Balance and Rhythm are studied, using abstract spots as elements of design. A study is made of historic examples, color values and color harmonies, cast drawing from head, and sketching from life; pen and ink drawing from still life groups, and original designing for wrought iron, furniture, and textiles.

COURSE OF STUDY.

1. 36 weeks in a year's work.
2. 22 recitations per week required.
3. 792 recitations in one year's work.
4. 18 recitations count one "point."
5. 44 points in a year's work.
6. 132 points required to graduate.
7. Figures below in parenthesis denote number of recitations per week in the subject.
8. "R" denotes required subjects.
9. "E" denotes elective subjects.
10. In order to take full work, pupil must take all the required work of each year, and elect enough to make 22 recitations per week.

NINTH GRADE.

Literature and English.....	(4)	R.
General History	(4)	E.
Algebra	(4)	R.
Botany	(4)	E.
Reading and Physical Culture.....	(2)	R.

Latin	(4)	}	E. one.
German	(4)		
French	(4)		
Spanish	(4)		
Sloyd	(4)		
Cooking	(4)	}	E. one.
Sewing	(4)		
Art	(4)		
Library Work (limited to four students)....	(4)		
Taxidermy	(4)		
Vocal Music	(4)	}	E. one.

TENTH GRADE.

Literature and English	(3)	R.	
English History	(4)	E.	
Algebra and Geometry	(4)	R.	
Zoology—Physiology	(4)	E.	
Reading and Physical Culture	(2)	R.	
Latin	(4)	}	E. one.
German	(4)		
French	(4)		
Spanish	(4)		
Sloyd	(4)		
Cooking	(4)	}	E. one.
Sewing	(4)		
Art	(4)		
Library Work (limited to four students)	(4)		
Taxidermy	(4)		
Vocal Music	(4)	}	E. one.

ELEVENTH GRADE.

Literature and English	(3)	R.
American History and Government.....	(4)	R.

Solid Geometry	(4)	E.
Physics	(5)	E.
Reading and Physical Culture	(2)	R.
Chemistry	(4)	E.
Physiography	(4)	E.
Latin	(4)	} E. one.
German	(4)	
French	(4)	
Spanish	(4)	
Sloyd	(4)	
Cooking	(4)	} E. one.
Sewing	(4)	
Art	(4)	
Library Work (limited to four students)....	(4)	
Taxidermy	(4)	
Vocal Music	(4)	

OFFERED WORK.

Besides the broad group of elective studies open to the student, he may in the last two years, instead of an elective, substitute "offered work." This means that any student having the originality, ambition, and ability to do so, may plan a year or half year's work in any line of research, investigation, or occupation; and if a committee of the High School Faculty are convinced of the feasibility and value of the plan as set forth by the student in a written syllabus or outline, he is allowed to pursue that work and is given credit for what is accomplished.



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